

# AMERICAN RAILROAD JOURNAL, AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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## AMERICAN RAILROAD JOURNAL.

NEW-YORK, FEBRUARY 21, 1835.

We give to-day the proceedings of a meeting held at Jessup's Hotel, on the evening of 7th inst., in relation to the Genesee Canal. We consider this Canal as one of the principal veins, which, when completed, will connect two great arteries of the system. It has been surveyed, and should, beyond all question, be promptly and favorably acted upon by the Legislature.

The friends of the Chesapeake and Ohio Canal will no doubt be highly gratified to learn, that one of the greatest obstacles on the whole line, (we allude to the projected tunnel of upwards of three miles in length,) may be partially obviated. Recent explorations in the vicinity of the summit, by persons qualified to judge, have satisfied them that but a short distance from the present site of the tunnel, and at about the same elevation, the waters, east and west of the dividing ridge, may be connected by a tunnel not over a mile in length, having all the advantages with regard to the proposed feeders which the present summit has. Should this, on actual survey and measurement, turn out to be the fact, of which we are assured there can be but little doubt, the greatest obstacles to a continuous water communication between the Chesapeake and Ohio will be removed, and give further stimulus to the friends of this national improvement to persevere in the grand undertaking.—[Somerset Whig.]

Jersey Railroads.—The Common Council of

New Jersey have resolved, 10 to 3, "that the passage or any act by the Legislature, authorizing any Railroad across the State would be impolitic, in violation of the faith of the State, and deeply injurious to the interest of the State.—[Journal of Commerce.]

The Florida Herald of the 17th ult. contains the message of Governor Eaton to the Legislative Council of that Territory. A topic of general interest in it, is the information it gives as to the want of an accurate survey of the coast of Florida. The only charts that the numerous American navigators of the adjacent waters have, are compilations from former French and British research. Governor Eaton thinks himself authorized to assert that statistical investigations will show that nearly one half of the whole export trade of the United States passes through the Gulf of Mexico. And yet this immense amount of trade is guided on a tempestuous and dangerous coast, by charts made by foreign nations, and become incorrect from the alterations produced in the bars and in the depth of water by currents. There are two important points where light houses are wanted.

Egypt.—The *Osservatore Tricestino* gives the following extract from the Egyptian *Moniteur*:

"ALEXANDRIA, Nov. 15.

"The Viceroy set out some time ago on his annual journey through Lower Egypt, on which he devotes his attention particularly to agriculture. He will then go to Cairo, and afterwards to Upper Egypt, in order to animate there also the labors of agriculture by his presence. At the time when the Egyptians were carrying on the war in the Morea there were at Alexandria, no more than thirty inexperienced carpenters.—At that time large ships could not enter this port without difficulty. It was necessary to send to Europe for men who were able to second the plans of the Viceroy. Every body knows the success of his persevering efforts. Alexandria now possesses a large arsenal, a well disciplined fleet, commanded by officers who have been educated in France and England, and lastly, a naval school. The officers of the navy now are, 1 general of division, or admiral, 1 brigadier general, or vice-admiral, 1 colonel, or vice-admiral 15 lieutenant colonels, 15 adjutant majors, 15 adjutants, 35 captains of the first class, 41 ditto of the second class, 62 lieutenants, 55 sub-lie-

tenants, 80 cadets of the first class, 31 of the second, and 55 pupils of the marine. Divine Providence has given to Ali Pacha numerous descendants; these youths are brought up to the use of arms, and initiated in serious and useful studies. The eldest of them, Said Bey, aged eleven years, has already embarked on board the Admiral's ship, the *Saint Jean d'Acres*, as cadet, of the second class. M. Koenig, a Frenchman, acquainted with the Turkish language, accompanies him, to instruct him in French. He has also a Persian master, and eminent masters are expected from Europe, to teach him drawing and the nautical sciences. M. Carrey, one of them, who has already an appointment in the Polytechnic School, came to Alexandria to instruct him in the principal of the other European languages. Twenty-six chosen young men have the honor of being admitted to be the companions of his studies. Uniting theory with practice, he will probably be qualified, in 6 years, to take the command of a man of war. Two months ago he embarked at Alexandria to commence his naval apprenticeship, on the coast of Syria, but has now returned. The disturbances in Syria and Arabia are happily terminated. Some late troubles that broke out in Latakia and the environs, were stopped, as it were, in their birth. The works in cleaning the course of the Nile are continued with unparalleled activity. More than 12,000 workmen are divided into regiments, and distributed in the two branches of the river, of Damietta and Rosetta; their number is daily increased; a vast quantity of earth is already removed, and the materials for the works are accumulating. At the desire of the engineers employed on the works, Cerey Rey lately had a hundred excavating machines made in the arsenal of Alexandria, which were immediately sent and are now at work. Thus a most useful and colossal work is carried on before our eyes in this country which possesses so many monuments of ancient splendor. The prosperity of Egypt must be infinitely increased if, as there is every reason to hope, the plan to regulate the inundation of the river should be successful.—The Pacha, who neglects nothing to accomplish this work has addressed a most flattering letter to Mr. Brunel, the contractor for the Thames tunnel, to induce him to come at least for one or two months to Egypt, in order to examine the banks of the Nile, and to forward the work by his counsel and experience: if Mr. Brunel declines he is requested at least to recommend another engineer. It was Marshal Marmont who suggested this step to the Viceroy. Next in importance to this great work will be the new Railroad, which is to be made from Cairo to Suez. Thus there will be a convenient channel of communication between Europe and India by the Red Sea. Mr. Galloway, on whom the Pacha has conferred the dignity of Bey, is gone to Europe to procure materials for the Railroad.



**GENESEE AND ALLEGANY CANAL MEETING.**—Agreeably to public notice, a meeting of citizens of New-York, friendly to Internal Improvement, was convened at Colonel Jessup's Union Hall, corner of Greenwich and Courtlandt streets, on Saturday evening, February 7, 1835, Christian Bergh, Esq., was called to the Chair, and Messrs. George F. Hopkins and Edwin Williams were appointed Secretaries.

After a full discussion of the subject, and statements having been made to the Meeting, showing the importance of the proposed Canal, the following resolutions were unanimously adopted.

1. Resolved, That the proposed Canal from Rochester on the Erie Canal to Olean on the Allegany river, through the valleys of the Genesee and Allegany, is an object of great importance to this State, and particularly to this city, as it would open a direct communication with the valleys of the Ohio and Mississippi, and the tide waters of the Hudson.

2. Resolved, That when we consider that the Genesee and Allegany Canal would form a union of the Erie Canal with *twenty thousand miles of navigable rivers*, (the Mississippi and its tributaries,) watering thirteen States and Territories of the American Union, we cannot but view it as *superior* in its advantages to the present connexion of the Erie Canal with the waters of Lake Erie.

3. Resolved, That the great and increasing demand for *lumber*, for ships and habitations in this commercial emporium, forms an additional reason for making the proposed Canal, as in the valleys of the Genesee and Allegany abundant supplies of timber, and other lumber, of the best quality, may be readily obtained.

4. Resolved, That on a deliberate examination of the subject, and when it is considered that the proposed Canal, of about ninety miles in length, is estimated to cost only about seven hundred thousand dollars, we are firmly of opinion that no project of internal improvement promises so great benefits to this city and State, in proportion to the expenditures required.

5. Resolved, That the proposed Genesee and Allegany Canal is the only feasible work of internal improvement, which will insure to this city an advantage over Philadelphia and Baltimore in the trade of the Western States,—an object for which the States of Pennsylvania and Maryland have expended millions of dollars in constructing railroads and canals.

6. Resolved, That money expended in the construction of Railroads and Canals, is so expended to stimulate the industry, and increase the means of sustenance and comfort of the great mass of our citizens; that such improvements, so far from consuming the capital of the country, actually augment it, inasmuch as when they are completed, the money which they cost is still among us, diffused to the uses of those who are best entitled to it,—namely, those who, by the sweat of their brows, have opened channels of intercourse, which experience has taught us, add alike to the moral and physical advantages of the union; while the improvement perfected, remains a perpetual source of income, thus giving us its advantages, by means eminently adapted to the promotion of the best interests of society.

7. Resolved, That the members of the Legislature from this City are hereby earnestly requested to use their best exer-

tions in favor of the passage of a law, at the present session, authorizing the immediate construction of a Canal from Rochester to Olean.

A committee of 100 was appointed to take measures to have this subject properly presented to the Legislature now in session.

TO THE HONORABLE THE LEGISLATURE OF THE STATE OF NEW-YORK.

*The Memorial of the Subscribers, Inhabitants of the City of New-York, respectfully represents:*

That when the Erie and Champlain Canals were completed, (in 1825,) the assessed value of real estate in this city was only about fifty-eight millions of dollars; that the same is now one hundred and twenty-three millions of dollars; that they believe this astonishing increase is attributable in a great measure to the effects of the Erie Canal, which is now, however, only partially completed. Its original projectors contemplated a connexion of our tide waters with the Allegany, the Susquehannah, and the Delaware Rivers. The two latter have been done by means of hundreds of miles of Canals and Railroads, and at a cost of several millions of dollars. For the former, not a cent has been expended, although it requires only about seven hundred thousand dollars to construct it from Rochester to Olean, forming thereby a communication of more than 10,000 miles, with navigable rivers that water thirteen states, opening to our market incalculable quantities of the choicest timber and other lumber, with the rich productions of the tropical regions, and the produce of those great valleys that constitute so large a proportion of the whole area of the U. States. The interest of this city demands that it should be commenced at once; if for no other purpose than to relieve us from the paralyzing scarcity of timber, boards, &c., for our increasing ships and houses, which the demands of commerce and habitations for our growing population require.

Why this apparent neglect? Its importance has been known and long since pressed upon the Legislature in four successive messages by the late Governor Clinton. Why have trifling objects, in comparison, absorbed the attention and the resources of the State? The inhabitants on the line of this proposed Canal have never been outlawed; they are our patriotic fellow citizens, who depreciated their own estates by contributing to the construction of the Erie Canal. If they were not entitled to the common privileges of justice, their sins should not be visited upon your memorialists in this city.

The increased canal revenue, which would follow the increased transportation by means of this great internal opening, should not be forever lost to the State; and delay is every day diverting millions of commodities that would be attracted to our state, and pay tolls to our canals, and enrich and extend our commercial metropolis.

It is computed that the immediate enhancement of value of real estate in this city by the construction of the proposed canal would be at least *five per cent.*, which would amount to over *six millions of dollars.*

Pennsylvania, under all her disadvantages of almost impassable mountains, has already opened a communication, broken by alternate canals and railways, and at an immense cost, has reached the Ohio river, and will fasten on to the trade of the West, and bring it to her own metropolis, if supineness and miscalculation on the part of this State continue to predominate.

Your memorialists, therefore, most respectfully, but most earnestly pray, that a law may be passed the present session which shall require the completion of the Genesee and Allegany Canal, with the least possible delay.

[From the forthcoming number of the Mechanics' Magazine and Register of Inventions and Improvements.]

*Specification of the Patent granted to GEORGE CARTER, of Mottingham, in the County of Kent, Gentleman, for certain Improvements in Paddle-Wheels.*  
—Sealed June 1, 1833.

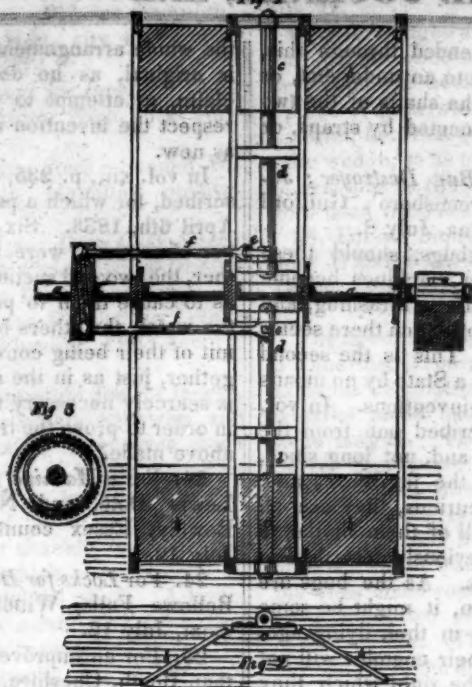
To all to whom these presents shall come, &c. &c.—Now know ye, that in compliance with the said proviso, I, the said George Carter, do hereby declare the nature of my said invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following description thereof, reference being had to the drawing hereunto annexed, and to the figures and letters marked thereon (that is to say):

My invention consists of certain valves added to the float-boards of paddle-wheels, whereby the water against which such float-boards are acting is permitted to flow through, so soon as the float-boards would no longer be acting advantageously in propelling the vessel, and at the same time the water will not be lifted by the float-boards as they leave the water, and thus the surge caused by the back-water will be in a great measure avoided. But in order that my invention may be most fully described and understood, I will describe the drawing hereunto annexed.

Fig. 1 shows an edge view of part of a paddle-wheel constructed according to my invention, there being only two sets of float-boards shown; but as the arrangement of the parts are similar to each set of float-boards, the invention will readily be understood by a competent mechanic.

Fig. 2 represents the plan of one set of float-boards, together with the valve between them, in the position at which they are when under water, and exerting their most effective force in propelling the vessel. In each of the figures the same letters indicate similar parts, *a* being the main shaft or axis driven by the engine; *b, b*, are float-boards, which, it will be seen, are set at an angle with respect to each other, leaving a space between the two inner ends, which is to be closed by the valves, *c*, at the time the float-boards are exerting their force against the water; but the valve *c*, turns on the axis or spindle, *d*, so soon as the further holding the water would not be advantageous in propelling the vessel, at which time the water flows freely between the float-boards, *b*, and thus tends to prevent the lifting back-water. The spindle or axis, *d*, turns in bearings on the framing of the wheel, and at the other end there is affixed a crank, *e*, having a connecting rod, *f*, attached thereto, as shown in fig. 1. The connecting rod, *f*, is acted on by two inclined planes





affixed to the side of the vessel, in such manner that the connecting rod is alternately forced outwards and drawn inwards for closing and opening the valve, *c*. These two inclined planes are shown separately in fig. 3.

Having now described the nature of my invention, and the manner of combining the various parts, I will describe the manner of their action. I will suppose a paddle-wheel constructed, having any determined number of sets of float-boards, fitted and arranged as above described. It will be evident, that motion being communicated to the same by the main shaft, *a*, the valves, *c*, will successively be closed by the connecting rods, *b*, rising up the lower inclined plane, and will be kept close till it arrives to the end of the plane, when it will pass over the upper inclined plane, by which means the connecting rod will be drawn inwards towards the vessels, which will turn the valve, *c*, edgewise, and thus no longer prevent the water passing between the float-boards. I would observe, that although I have here described the valves, *c*, as turning on axes, yet it will be evident that in place thereof the same may be caused to slide up and down; nor do I confine myself to the precise arrangement of parts for turning the valves. And I would have it understood that I am aware that paddle-wheels have been before made with angular float-boards; I do not, therefore, lay any claim thereto, but do hereby wish it to be understood that I confine my claim of invention to the placing of valves, *c*, to stop the water from flowing between such angular float-boards during the time they are advantageously acting on the water to propel the vessel, and opening a way for the passage of the water between them so soon as their action would not be longer advantageous, and thus tending to pre-

vent the lifting the water as above described.—In witness whereof, &c.  
Enrolled November 30, 1833.

[From the Journal of the Franklin Institute for Feb.]  
*List of American Patents which issued in July, 1834, with Remarks and Exemplifications by the Editor.*

1. For a *Saw for saving Staves for Barrels, &c.*; Aaron Bard, and Simeon Heywood, Lunenburg, Worcester county, Massachusetts, July 8.
2. For a *Machine for Picking Curled Hair*; John Thompson, 3d, Marblehead, Essex county, Massachusetts, July 8.
3. For improvements in the *Crane used for raising and removing heavy bodies*; Hezekiah Bradford, city of New-York, July 8.

This crane is principally intended for raising and removing the earth, or other bodies, in excavating the ground for canals and railroads, and it is so constructed, that the boom which sustains the load can be made to raise it to a considerable height, and deposit it upon a bank in any spot required. The boom is rigged to a mast, and the respective motions are produced through the intervention of tackle. The arrangements have been made with much skill, and so far as a judgment can be formed from the evidence before us, we see no reason why the apparatus should not operate in a very advantageous manner. The whole description has reference to the drawings which accompany it, and these, indeed, seem absolutely necessary to the understanding of its details.

It is stated that, "by the use of the above machine, a horse, or other animal, and one driver, will accomplish the removal and deposit of a greater quantity of coals, or other heavy bodies, from one spot to another, or to and from a wharf, barge, scow, or other vessel; or remove

and deposit in the same manner, from excavations, or in other similar work, a large quantity of earth, or other heavy materials."

"By the arrangements for altering the rake of the mast, I with facility cause the weight that is raised to swing round whilst in the act of raising, and to be carried to the place where it is to be deposited, governing the motion thereof so as to make it more or less rapid, by merely changing the rake of the mast, and the position of the snatch block, so that it shall be further from, or nearer to, the mast. I cause the emptying of the load, or the dumping, as it is called by the workmen, to be effected by the same power which raised it, and at the moment at which it arrives at its place of destination."

"I do not claim as my invention, or improvement, the introduction of the use of a crane, or boom, for the purpose of raising and removing heavy bodies; nor do I claim as my invention, or improvement, any of the several parts of the above machine. But I claim as my invention and improvement, the combination in all its substantial parts, and the above described new arrangement and adjustment of the parts of said machine to each other, in such a manner as to produce the above results, when applied to the purposes above specified."

4. For a *Portable Furnace*; John Lewis, Derby, New-Haven county, Connecticut, July 8.
5. For a *Cotton Whipping Machine*; Samuel P. Mason, Killingly, Windham county, Connecticut, July 8.
6. For an improvement in the *Construction of Hatters' or other, Kettles*; William Porter, and Abraham Sanger, Waltham, Middlesex county, Connecticut, July 8.
7. For an improvement in the *Fire-place*; Horace Saxton, Erie county, New-York, July 8.
8. For a *Horizontal Straw and Vegetable Cutter*; Paul Moody, city of Philadelphia, July 8.

The straw, or vegetables, to be cut, are placed in a box, or hopper, in which they descend by their own gravity, so as to come into contact with a revolving blade, extending from the centre to the periphery of a horizontal wheel. The patentee says, "I am aware that simply a wheel, with one or more knives, or cutters, screwed on the arms, in a machine for cutting straw, is no new thing. But the peculiar construction of the above described box-wheel in a machine for cutting straw, hay, &c. &c., which, with its regulating bottom, or gauge, the mode of fastening the knife and slitters to it, with the application of the latter in the machine to cut vegetables square, and also the apparatus above described for forcing down and compressing hay, straw, &c. &c., is what I claim as my invention and improvement."

Machines similar in principle have been previously patented and described by us; the claim, therefore, should be only for what are called improvements, the general construction belonging to the original



inventor, and not being usable without his consent.

9. For a *Hammer Hatchet*; Joel Howe, Princeton, Worcester county, Massachusetts, July 8.

If to the hammer part of a shingling hatchet, you add a claw projecting back from the hammer face, in a line with the handle, you have this machine.

10. For a *Plough*; James Jacobs, Maysville, Mason county, Kentucky, July 8.

12. For a *Filtering Apparatus*; Littleton Ayres, city of Baltimore, July 8.

13. For a *Self-balancing Slide Valve for Steam Engines*; John Kirkpatrick, city of Baltimore, July 10.

14. For an improvement on *Bushing the Sheaves of Pulleys*, and on their pins; Moses H. Marshall, Gloucester, Essex county, Massachusetts, July 10.

15. For a *Traverse Sleigh*; Bela Markham, Burlington, Chittenden county, Vermont, July 10.

17. For an improvement in *Railway Carriages*; Isaac Knight, city of Baltimore. First patented March 18th, 1829; patent surrendered, and re-issued upon an amended specification, July 10.

The same mode of sustaining the lateral thrust of the axle which forms the claim of Mr. Knight, was also claimed in one of the patents obtained by Mr. Ross Winans; which of these gentlemen was "the true and original inventor," is not a question for us to determine.

18. For an improvement in the employment of *Water Power*; Ebenezer Barford, Jay, Oxford county, Maine, July 10.

"The specific, new, and superior facilities comprised in the above described improvement, and which I claim as my own invention, are the following: 1st. The construction of the tub-wheel; its peculiar location, being immersed in a reservoir or cistern of water, and consequently not liable to be encumbered with ice; and the manner of its operation, as comprising the wedge power. 2d. The peculiar manner of using the water, so as to double its action upon the terminating wheel, with its full primary force in each action. 3d. The general arrangement and combination of the parts, without specially regarding their size or proportions, or the material of which they are constructed."

Those persons who are well acquainted with hydraulics, will see enough in the foregoing claims to convince them that the inventor has "travelled out of the record." The idea, which is clearly expressed, that the same water, in the same fall, may be twice used, "with the full primary force in each action," is so manifestly fallacious, as not to require to be disproved; if it can be twice used "with the full primary force," it may be so used a hundred times, and a fall of four feet would be as available as one of four hundred.

In the plan before us, a wheel, with spiral openings near its periphery, through which the water is to descend, is to be placed horizontally in a trunk, or flume;

and after it has descended through this, it is to be conducted to an undershot, or flutter, wheel; and the shafts of the two wheels are to be connected by straps, or gearing.

19. For a *Steam Bug Destroyer*; Jonathan Howlet, Greensboro', Guilford county, North Carolina, July 8.

Woe to the bed-bugs, should these steam bug destroying machines become as numerous as washing, thrashing, and churning machines, of which there seems to be some danger. This is the second from North Carolina, a State by no means prolific in patented inventions. In vol. xiii., p. 313, we described one from the State of New-York, and, not long since, there was one from the far West; and, what is somewhat curious, they are all alike, and are also all of them similar to such as had been previously described in the English journals. As the bugs are doomed to destruction, it might be some consolation to them in their dying agonies, to know that their enemies will not be able to sustain the right which they claim to their "infernal machines," under the patent laws, the great seal to the contrary notwithstanding.

20. For *Propelling Wheels*; William Kelly, city of Pittsburgh, Pennsylvania, July 10.

21. For propelling machinery by *Horse Power*; Eliakim Briggs, Fort Covington, Franklin county, New-York, July 12.

This is the common, inclined, movable floor, upon which the horse is to walk. The cross slats are to be connected together by staples and links on their under sides, which, by their bearing against each other, as the floor becomes straight, are to sustain it, with the horse, or horses, upon it. The doing this by means of the staples and links, is the part claimed as an improvement. There are at least two existing patents for sustaining such a floor, without ways between the drums at the ends; in both these instances, however, blocks, or stops, attached to, and rising to some height above, the upper sides of the slats, were to be brought into contact by the straightening of the floor. This latter method is undoubtedly preferable to that designated in the foregoing patent, but neither of them can be safely depended upon, with the weight of a horse upon the floor, as it is subjected to a leverage which will, sooner or later, cause them to fail.

22. For a *Chain of Boats*, for inland navigation; Gurdon F. Saltonstall, Darlington District, South Carolina, July 12.

As the title indicates, these boats are to be so constructed that two, three, or more, may be linked together. Those forming the two ends present a sharp bow to the water, whilst the joining ends terminate abruptly, so that, when brought together, and linked, they form one continuous boat. The specification points out the advantages to be derived from boats thus constructed, and the patentee manifestly supposes that the idea of thus connecting boats is altogether new; in this, however, he is mistaken, as will presently appear. He, in fact, seems to think that

the whole arrangement proposed by him is original, as he does not make any claim, or attempt to point out in what respect the invention is to be considered as new.

In vol. xii., p. 235, canal boats are described, for which a patent was obtained, April 6th, 1833. Six, or any other number of sections, were to be joined together, the two end sections being so formed as to cause them to pass readily through the water, the others being square, to admit of their being conveniently linked together, just as in the case before us. It is scarcely necessary to go further back, in order to prove the truth of the assertion above made.

23. For a *Machine for Drawing Boots*; Lewis Dole, and Nathaniel Peckard, Bowley, Essex county, Massachusetts, July 12.

24. For *Locks for Doors*; Simon Pettes, Bellows Falls, Windham county, Vermont, July 12.

25. For an improved *Cider Mill*; Nathan Booth, Cheshire, New-Haven county, Connecticut, July 12.

This cider mill is to be made in the form of the old-fashioned coffee or bark mill, with a conical nut, and a shell adapted to it, both of which are to be made of wood, the grooves or spirals upon them being formed by bars of iron fixed upon each, at an angle of about forty-five degrees. These bars are to be an inch wide, and half an inch thick; they are to project their whole thickness at the upper, or feeding end, but are to be let into the nut and shell, so that, at their lower ends, they shall not rise more than a sixteenth of an inch. The wood between them, at the upper ends, is to be grooved out, so as readily to admit the apples.

26. For an improvement in the mode of manufacturing of *Plates for Gun Barrels*; Harvey Mills, Springfield, Hampden county, Massachusetts, July 12.

The plates are to be prepared for welding, by rolling, instead of by forging, as has been usually done. The rollers are to be somewhat more in circumference than the length of the barrel to be formed, and are to be geared together in the ordinary way.

Flat bars are to be employed, of about three fourths of an inch thick, and wide enough to form the butt of the plate by rolling longitudinally; and in order to give the taper required, both in width and thickness, the bar is first rolled edgewise through eccentric grooves, wide enough to receive it, and is thus reduced to the proper width. It is then rolled flatwise through another groove, or grooves, so formed as to give it the required thickness at the butt, the muzzle, and the intermediate parts. The scarfing is performed in the same way, in suitable grooves, as is likewise the grooving by which it is finally prepared for welding.

27. For a *Pump Gauge*, for ascertaining the depth of the water in the hold of a vessel; James D. Woodside, city of Washington, District of Columbia, July 14.

29. For an improvement in *Railroad*



*Cars*; Joseph S. Kite, city of Philadelphia, July 14.

30. For a *Platform Balance* for weighing; Samuel L. Hay, city of Boston, Massachusetts, July 14.

31. For a *Bedstead for Invalids*; William Leo Woolf, city of New-York, July 15.

23. For a *Cooking Stove*; Samuel W. Phelps, Cincinnati, Hamilton county, Ohio, July 16.

33. For a *Rarefying Oven Cook Stove*; Samuel W. Phelps, Cincinnati, Hamilton county, Ohio, July 16.

34. For a machine for *Cutting Laths*; Dana Hubbard, Wheeling, Ohio county, Virginia, July 18.

A plank, of about eight feet in length, is to be fixed so as to slide backward and forward, horizontally, in grooves made for that purpose, in a strong bench or frame. The plank is to receive its traversing motion of about eight inches, from a pitman, or shackle bar, attached to one end of it, which is acted upon by a crank on a fly-wheel shaft. A knife, the full length of a lath, and from four to six inches wide, is to be fixed upon the sliding plank obliquely, making an angle of about 20 degrees with the edge thereof. The stuff to be cut is first sawed into boards, and then cross-cut to the length of a lath; these boards are dropped edgewise into a groove falling so as to be cut by the knife, the board bearing against a cutting block, faced with steel on its under side. The laths pass, as they are cut, through an opening made in the plank for that purpose.

35. For a *Cheese Press*; Sylvester Kibbe, Schoharie, Schoharie county, New-York, July 18.

36. For a *Steam Fireplace*; John W. Cochran, Lowell, Middlesex county, Massachusetts, July 18.

The apparatus here patented is intended to heat dwelling houses, ships, and other places, by means of steam generated by a fire in a common open fireplace, or caboose, without interfering with the use of the fire for culinary or other purposes.

A boiler of metal is to be made in the form of the back and jams of an ordinary fireplace. The back part of this boiler is to fit against the back of the fireplace, and its ends against the jams; it is not, however, we apprehend, to be in contact with them, but at a sufficient distance to allow heated air and flame to pass between them. The height of this boiler, judging from the drawing, will be about equal to that of the breast of the fireplace, and its depth at bottom about a foot, whence it is to slope back as it ascends; it is to have feet at the bottom, to raise it from the hearth. There are to be two long rectangular cavities in the front, something like ovens, into which the flame is designed to enter, to increase the heating effect, the double plates surrounding these cavities. Water is to be admitted through a pipe at top, and steam is to escape through another pipe, and to be thence conducted around a room, or wherever it may be wanted.

37. For a *Bush for Mill Spindles*; Samuel Merchant, Ohio county, Virginia, July 22.

Metallic wedges are to be so placed in the common wood bush as to form a collar around the neck of the spindle, with a piece of gum elastic, or some similar material, between the wood and the metallic wedge, so as to give elasticity thereto, and thus to relieve it, in some degree, from dead friction.

38. For an *Improvement in Wagons, or other Wheeled Carriages*; Reuben Rich, Albion, Oswego county, New-York, July 22.

The specification of this improvement is somewhat laconic, yet the writer terminates his description as though the few remarks made had been productive of some fatigue. The whole which can be called descriptive is in the following words: "The wheels are the same as common carriages, except the hubs, and the axles in the hubs. The axle in the hubs is a bar of iron through the hub, with the ends made round, sticking out of the hubs about two or three inches, as the case may be. These axles are made permanent in the hubs, and revolve round with the wheels, and the frame is explained in the drawing; so it needs no further explanation about it."

39. For a *Retaining Box for Oil in Upright Journals*; Henry Barton, Rochester, Monroe county, N. Y., July 22.

Below the box in which the upper gudgeon of a vertical shaft revolves, there is to be a cup for containing oil. The box is secured to the framework by a flanch on its upper side, and descends upon the gudgeon so that a cap fastened upon the shaft, just below the box, may have its sides rise so as to surround the said box, without touching it. The cup may then be nearly filled with oil, which, from the height of the rim of the cup, will necessarily flow in between the gudgeon and the box. When the shaft is to have a rapid motion, this, as the cup revolves with it, would tend, by centrifugal force, to throw the oil out of the cup; a recess, or groove, is, therefore, formed round the lower part of the cup, to retain the larger portion of the oil, and thus to counteract its tendency to overflow.

The advantages derived from the application of the retaining box are stated to be, "first, the effectual preservation of all such bearings from becoming dry, heating, and wearing, and deranging their relative positions, prevent fire from friction, which has not unfrequently been the result of rapid motion. Secondly, a great saving of oil, as the cup saves all that is applied. Thirdly, a saving of time, for, with the addition of the retaining cup, once a week will be often enough to apply oil, when, without it, from once to four times a day is required, in most cases. Fourthly, cleanliness in all fine machinery, as nothing can flow down the shaft, or spindle, to foul or otherwise disfigure or injure below."

40. For a machine for *Blocking Horse Collars*; Nathan Post, Norfolk, St. Lawrence county, New-York, July 24.

41. For a *Regulated Pressure Engine*; Daniel Livermore, Civil Engineer, Blairsville, Indiana county, Pennsylvania, July 24.

This is a very ingeniously contrived hydraulic engine, for applying the power of water to drive machinery, by a regulated pressure. The description of it is of great length, and it was our design to have epitomized it, accompanying our account with the necessary cuts. The article is not, however, yet prepared, and as we anticipate the reception of an account of its actual operation from the inventor, who is engaged in carrying it into practical operation, we shall, for a time, postpone the intended publication.

42. For a *Plough*; Henry Peachey, city of Philadelphia, July 25.

43. For a *Thrashing Machine*; Gideon Hotchkins, Windsor, Broome county, New-York, July 25.

Although a very labored description is given of this thrashing machine, and certain distinct claims are made, there still is not, in our apprehension, any thing presented which is new. The machine is of the cylinder and concave kind, with beaters which swing upon bolts passing through circular heads, in a way that is well known.

44. For improvements in the *Process of Tanning*; Edward S. and Daniel Bell, Smithfield, Jefferson county, Virginia, July 28.

45. For a *Female Auger for cutting Wagon Spoke Tenons*; John Lenher, Co-calico township, Lancaster county, Pennsylvania, July 28.

Bits for cutting round tenons, or pins, have been long and well known, and have also been used for tenoning spokes for wheels. So far as we can judge from a very imperfect description, there is nothing new in the one which is the subject of this patent; if there is, it consists merely in a change of shape, without the production of any new effect, or the employment of any improved means.

A patent was obtained for an improvement in augers, or bits, of this kind, by Mr. Abel Conant, in June, 1829, as may be seen by turning to p. 176, vol. iv.; at which time it was not pretended that there was any thing new in the thing itself. The plan, as there proposed, we think decidedly superior to that now offered.

46. For a *Saw Knife*; Lorenzo Graham, Paris, Oneida county, New-York, July 29.

Take a common knife, and cut teeth in the back of it, and you have the patent saw knife, which, we are told, may be used for culinary purposes, for pruning, or for any thing else which may be found suitable.

47. For an improvement in the mode of *Chilling Cast Iron Wheels for Railroad Cars*; Phineas Davis, Civil Engineer, city of Baltimore, July 29.

48. For promoting the *Combustion of Anthracite, in Locomotive and other Steam Engines*; Phineas Davis, Civil Engineer, city of Baltimore, July 29.



## 102 AMERICAN RAILROAD JOURNAL, AND

(From the London Mechanics' Magazine.)

**Birch's Patent Axletree and Box for Carriages.**

Many have been the attempts made to supply that important desideratum in coach-making, namely, a permanently oiled axle, or, to speak more properly, an axle that once supplied with a sufficiency of oil will remain so—if not forever, at least for such a length of time as will obviate the numerous inconveniences with which the necessity of frequent oiling is attended; when travelling, more especially. Mr. Birch, the eminent coach maker, has recently invented and patented an axletree and box, which seems to us to go much further towards supplying this desideratum than any other invention of the kind with which we are acquainted.

Fig. 1 of the prefixed engravings, represents the arm and shoulder of Mr. Birch's axletree. The arm, which is a perfect cylinder, has a groove cut in it to allow the passage of oil; the end is screwed to receive the nut, and a hole is cut into it for the lynch-pin.

Figs. 2 and 3 are two loose cylindrical barrels, made to turn easily on the axle arm; each is perforated with holes, to allow the free passage of oil, and to receive any grit that may have got on the surface.

Fig. 4 is the nut, the back of which, or the end that meets the box, is made convex, so as to fit into the concave end of the box and against the cylindrical barrels. The other end of the nut is hexagonal and cut through the six sides, in order that the lynch-pin, fig. 5, may be put in at any of these sides, and the play of the wheel adjusted to a nicety.

Fig. 6 is the cap or reservoir which is screwed into the lynch end of the box. Now let us put these parts together. The cylindrical barrels, (figs. 2 and 3,) are put on the arm, (fig. 1,) and, after these are inserted in the box, (which latter, as we shall see by the section, has a chamber in the rear for the oil,) the nut, (fig. 4,) is screwed on, and the lynch-pin put in. Having screwed on the cap, the box will be complete, as inserted in the nave, and as shown by fig. 7.

Fig. 8 is a section on a larger scale, to show the connection of the different parts; *a a* is the box which shows the channels for the oil; *b b* the chamber to receive the oil; *c c* the cylindrical barrels; *d d* the nut; *e* the axle arm, showing the channel *f*; and *g* the cap.

Mr. Birch had fitted up a gig with one of these axletrees, one wheel of which being once oiled, was never again disturbed until worn out. The other wheel had the cap taken from it, and ran six hundred miles; the arm, &c. was then well cleaned and polished, and put together without any oil, when, in this state, the wheel ran sixty miles without sticking fast.

Sir John Conroy, who has the charge of the stables of her Royal Highness the Duchess of Kent, was the first person to notice the improved axletree, and he has introduced it in some of her Royal High-

ness's travelling carriages, where the improvement has been found to answer remarkably well.

One of these axletrees was put to the cabriolet of John Ramsbottom, Esq., M. P., which went out on the 9th October, 1831. One month afterwards it was examined and refitted up, and was not again touched until the 23d of May, 1833, when it was found quite full of oil. It was again refitted with the same oil, and the cabriolet continued in use until the 12th of May, 1834; when the axletree and wheel were examined, in the presence of Dr. Birkbeck and Mr. Toplis. The latter gentleman has made the following report of this examination:

"Museum of National Manufactures, &c.  
"Leicester square, May 12, 1834.

"I was this day present on the premises of Mr. Birch, coachmaker, Great Queen street, to see the state of a pair of his improved axletree boxes, after the same had been in use above two years and a half since the last replenishment with oil. They were in a cabriolet belonging to John Ramsbottom, Esq., M. P.

"There appeared to have been no partial wear; every part was free and un-

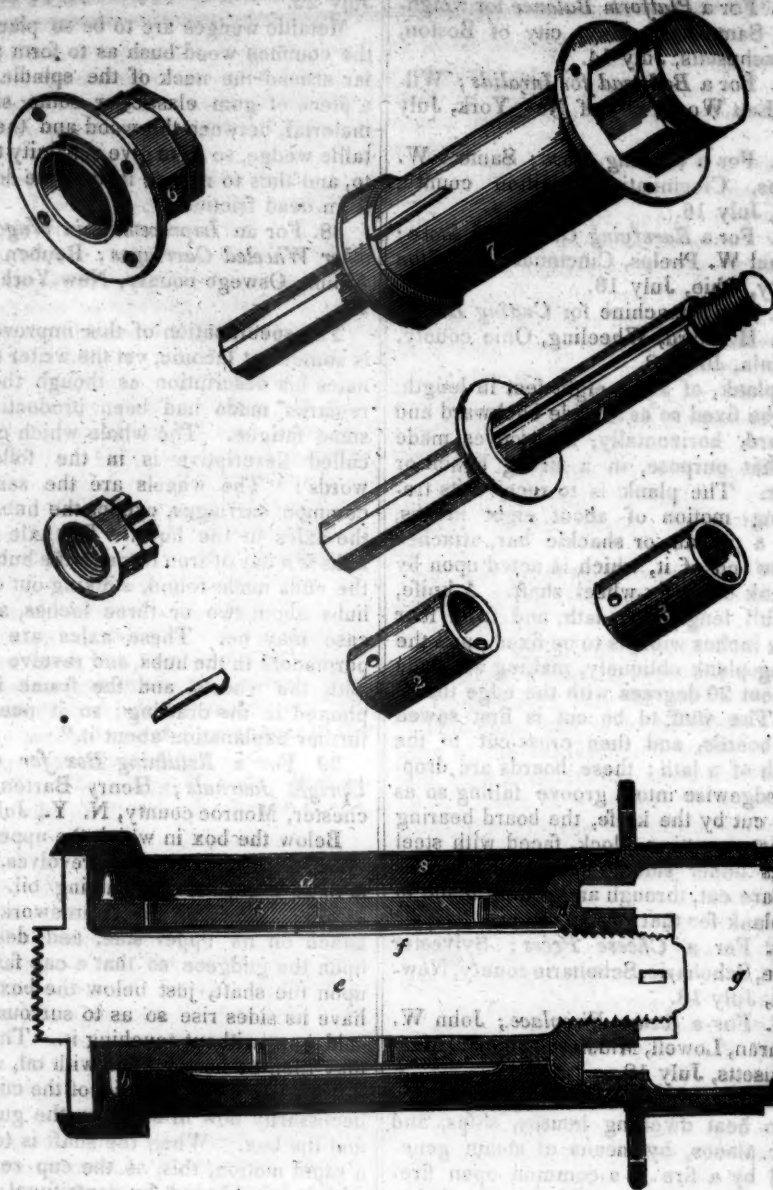
injured. All the rubbing surfaces were well covered with oil, and appeared to have been at all times sufficiently lubricated. The oil had not become glutinous, nor could much have escaped, as there remained still a sufficient quantity to keep the working parts in good order for a considerable time to come. The oil was discolored by the iron, but had no verdigris in it. The wheel was replaced without any further supply of oil.

(Signed) "CHARLES TOP LIS,  
"Director of the Museum."

*Specification of the Patent granted to WILLIAM NORTH, of Slangeate, Lambeth, in the County of Surrey, Slater, for an Improvement in Roofing or Covering Houses and other Buildings or Places.—Sealed January 29, 1833.*

To all to whom these presents shall come, &c. Now know ye that my said invention is described and ascertained in manner following, (that is to say):

My improvement in roofing or covering houses and other buildings or places, partly consists in laying and retaining upon the wooden or iron rafters of roofs, slates or slabs of slates, each of





which, with the exception of those used in the lower tier of all, is raised at its lower end by means of a fillet of slate, lead, or other metal, or of mastic composition attached to the under side of the slate or slab, which fillet, excepting when laid on slates, or slabs of slates of uneven surface, is scolloped on its under side, more or less, as may be required, so as to admit air from without to the timbers of the roof, and to let steam, heat, and damp, escape from within. My said improvement further consists in laying or retaining upon the wooden or iron rafters of such roofs, slates or slabs of slate, each of which, with the exception of those used in the upper tier of all, has attached to the top side of the upper end of each, a fillet of slate, lead, or other metal, or of mastic composition, smaller than the fillet before described, and the upper end of the slate, or slab, to which the smaller fillet is attached, being overlapped by the lower end of the slate or slab to which the larger fillet is attached, the smaller fillet excludes wet from without, while it does not prevent the air from being admitted to the timbers of the roof from without, or steam, heat, or damp, escaping from within, which completes the horizontal joints. Further, on the under side of each slate or slab, a groove is sunk at each side, the outer edges of which overlap the edges of a slate, or iron bearer, which has a corresponding groove sunk on each side of its upper surface, forming a channel for the discharge of wet that may get into the vertical joint.

And in order that this my specification may be sufficiently clear to enable competent persons, at the expiration of my patent, to practise my invention with the same advantage which I myself now possess, I shall describe the whole process of roofing, or covering houses, and other buildings or places, in the manner which I practise.



**Description of Drawing.**—The slates or slabs of slate are in thickness from 7-8 inch to 1 inch, according to the strength required, in length from 2 feet to 6 feet, the breadth about two-thirds the length. On the under side of each slate or slab, is a groove at each of its sides about 3-4 inch wide and 1-4 inch deep, fig. No. 1, A, A. On the under side of the lower end of

each slate, excepting those used in the bottom tier, or eave course, is a groove 3-8 inch and 1-8 inch deep, into which is fastened a fillet of slate, lead, or other metal, about 3-8 by 5-8 inch, by means of a seam of mastic or oil cement, having its bottom edge scolloped according as little or much ventilation is required, or not scolloped if the face of the slate upon which it bears is of uneven surface, fig. No. 2, B. And upon the upper side of the top end of each slate, (excepting those used in the upper tier of all,) is laid a fillet of mastic or other composition, or of slate, lead, or other metal, about 1/2 inch wide, 1/4 inch thick, fig. No. 2, C: observing, that I generally use a fillet of lead for the bottom end, on account of its exposure to the weather, and its flexible quality in bending to the unevenness of the slate, and a fillet of mastic for the top end on account of its adhesive quality to the slate, and being partly protected from the weather. The bearers upon which the sides of the slates or slabs bear, forming the vertical joints, are of slate or iron, from 1 to 2 inches thick, of the same length as the slates, and about 3 inches wide, with a groove about 1/2 inch wide and 1/2 inch deep on each side of the upper face, fig. No. 1, D, D, D.

**Method of fixing the improved roofing.**—The wooden or iron rafters must be placed horizontally, of sufficient distance apart to allow of the top end of the slates having 2 inches bearing, and the bottom end to overlap the slate below 2 inches, the principals or binders are about 8 feet apart. The slate or iron bearers are sunk and nailed at the upper ends, a sufficient depth into the rafters to allow of the slates or slabs bearing equally upon the rafters and upon the bearers, the bottom-end overlapping the head of the slate below 2 inches, and the sides of the slates or slabs overlapping the sides of the bearers, fastened at the bottom-ends with metal loops, E, E, countersunk into the face of the slate, and nailed to the rafters.—In witness whereof, &c.

Enrolled July 29, 1833.

*Specification of the Patent granted to JOHN BAPTISTE CONSTANTINE TORASSA, and others, for certain Improvements in Making or Producing the Pigment commonly known by the name of White Lead or Carbonate of Lead. Sealed December 11, 1833.\**

To all to whom these presents shall come, &c. &c. Now know ye, that in compliance with the said proviso, we, the said John Baptiste Constantine Torassa, Paul Isaac Muston, and Henry Walker Wood, do hereby declare the nature of the said invention to consist in making or producing the pigment commonly known by the name of white lead without the use or employment of vinegar, or acetic, or acetous acid, in any other form or under any other name, and without the aid of artificial heat, except for the purpose of drying the white lead, as hereinafter mentioned, by reducing the ordinary lead of commerce, by friction

in water, to a very fine powder, and then exposing the said powder to atmospheric air, so that it may acquire both oxygen and carbonic acid, and thus be converted into the pigment aforesaid.

We cut common sheet lead into very small pieces or grains, or, what is preferable, we form lead into what may be termed shot, in the same manner as patent shot is made, except that no other ingredient is used to cause the lead to cool in a perfect round form. The exact shape of the pieces of lead is immaterial, but the shape of shot is the most convenient. These shots or pieces of lead should be about the size of duck shot, and having procured any given quantity, we place them in an open shallow wooden vessel lined with sheet lead, which we call a friction vessel, covering the bottom of the vessel with the shot or pieces of lead to the depth of about one inch, and then add water sufficient to cover them, but not more. We then tip the vessel containing the shot or pieces of lead, from side to side, in such manner as to cause the shots or pieces of lead to roll backwards and forwards on the bottom of the vessel, and thus produce great friction of the pieces of lead, one against the other, and this friction will produce an extremely fine powder of lead mixed with the water, from which it will separate easily, if left to subside. We then remove the moist powder, which is at an early period of the process of a dark color, pass it through a fine sieve, and expose it for about eight or ten days to atmospheric air, whilst the power is still in a moist state, and about the consistence of thick cream, in another shallow open vessel, which we call the carbonating vessel, where we agitate or stir it constantly, in order to expose it as much as possible to the action of the atmospheric air, until it assumes a beautiful white color, and is thus converted into the pigment commonly known by the name of white lead or carbonate of lead. The carbonating vessel may be made of any convenient material, but we prefer wood as nearly colorless as possible. When the white lead is thus produced, if it should still contain any moisture, it should be well dried before it is put into casks for sale.

Now, whereas we do not claim as the said invention the form of the friction or carbonating vessels here given, or the particular manner hereinbefore described of agitating the lead, though the foregoing is the process we usually employ as being the best adapted of any we now know of for the purpose, when engine-power is not used; but we claim as the said invention the following improvements, (that is to say,) making white lead without the use of vinegar or acetous acid, in any other form or under any other name, and without the aid of artificial heat, except for the purposes of drying the white lead, as hereinbefore mentioned, and converting the ordinary

\* The engraving and description of it are omitted. We give merely the process of manufacture.—[Ed. M. M.]



lead of commerce into the pigment commonly known by the name of white lead or carbonate of lead, by reducing it to a fine powder by friction, as aforesaid, and then converting that powder into the said pigment by exposing it to the action of the atmosphere, as hereinbefore described. And such invention being, to the best of our knowledge and belief, entirely new and never before used, we do hereby declare this to be our specification of the same, and that we do verily believe this our said specification doth comply in all respects fully and without reserve or disguise with the proviso in the said hereinbefore in part recited letters patent contained; wherefore we do hereby claim to maintain exclusive right and privilege to the said invention. In witness whereof, &c.

Enrolled June 10, 1834.

**BRICK MACHINE.**—It will probably be recollected by our readers, that in our July number, or at page 26, of volume 4th, we gave a short description of a machine for making bricks. We now give a very minute account of it, with three of the ten drawings which accompanied the pamphlet. If it answers the recommendation accompanying it, even in a slight degree, we hope to see one of them in use in the vicinity of this city.

Fig. 1, a section of the machine.

Fig. 2, a ground view of the machine and wheel-house.

Fig. 3, the front view of a set of irons for one mould, namely, the foot-block, *t*; the piston, *sr*; with the wrought iron rods, *u v w*; the denser, *r g*; the levers, *q q*; and the head-block, *x*.

The above will suffice for a general description of the different plates. We shall now proceed to give a more particular and detailed description of each part of the machine, by referring to the letters upon the different plates.

**A A**, fig. 1, represent the ends of the posts as connected with the other parts of the structure. These posts must be 20 inches square, and 21 feet 2 inches long. The ends above the cap, and below the sill, must be two feet long; and if the timber be not very firm, they should be rounded at the corners, and banded with good wrought iron.

**B**, fig. 1, represents a cap. This should be framed in two parts. The upper part 50 inches long, 29 inches deep, and 20 inches thick. Into the under edge of the cap two grooves must be cut five inches square. The outer edge of each groove must be 12 1/2 inches from the end of the cap. This will place the grooves fifteen inches apart in the clear. The under part of the cap is 50 inches long, 20 inches wide, and 5 inches deep. Into this part of the cap two mortices must be made, 5 inches long and 3 wide, which, when the two parts of the cap are put together in the frame, will meet the grooves in the upper part of the cap, above described. Both parts of the cap must have a strong tenon at each end, 15 inches long, to go through the posts. The horizontal grooves in the upper part of the cap, as above described, and as seen in the plate, are to receive each two iron wedges, which regulate the thickness of the brick. The mortices in the lower part of the cap are to receive the head-blocks, which press against the under sides of the wedges.

**C**, fig. 1, represents what may be called the Denser Clamp. In the side view, seen in the plates, only one of these clamps are visible. They are 46 inches long, 26 inches deep, and 7 inches thick. They are boxed into the posts; the posts being left full in the centre, (a width of 6 inches,) and the boxing cut in 7 inches wide, and 3 inches deep. These clamps sustain the irons which confine the denser, and keep it in its vertical position. The two clamps are confined together by four bolts, the heads of which are visible in the draft. The top of the denser clamps are 75 inches below the bottom of the cap.

**D**, fig. 1, represents the Mould Clamps.

They are 46 inches long, 18 inches deep, and 7 1/2 inches thick. They are boxed into the posts in the same manner as the denser clamps, leaving a space between them of 5 inches. They are confined together in the same manner as the denser clamps, that is by four bolts, with heads at one end and screws at the other. Care must be taken to place these bolts in the positions represented in the draft, or they will interfere with the irons connected with the piston. Into these clamps the moulds are set, by cutting away in the inside, so that they will fit close when the clamps are put in and screwed firmly together. The moulds are fastened down by a bar of iron running across each end of them, and then turned at right angles, down through the denser clamps, with screws and taps at the bottom to keep them firm. These bars of iron should be three-fourths of an inch square; and the cast iron blocks, which form the ends of the mould, should be three-fourths of an inch narrower than those, which form the sides. Thus formed, the bar will, in fact, compose a part of the end of the mould. The bar should be made with a joint or hook at one of the angles, so as to be easily separated, when it may be necessary to take out the moulds. If this be not done, the denser clamps must be taken out before the moulds can be moved, which will always be difficult and troublesome.

**E**, fig. 1, represents the Sill, which is 50 inches long (exclusive of the tenons), 34 inches deep, and 20 inches wide. If it be difficult to obtain timber of the proper size, I can see no special objection to framing the sill in two parts, which will require the pieces to be 17 instead of 34 inches deep. The distance between the sill and mould clamps is 9 inches, between the mould clamps and denser clamps 10 inches, and between the denser clamps and cap 75 inches.

**F**, fig. 1, represents the Driving Wheel Shaft. This, (if the bottom of it be set on a level with the top of the sill,) must be 11 feet 10 inches long.

**G G**, fig. 1 and 2, gives a ground and side view of the Driving Wheel. This, if the cog-work be of wood, should be at least eight feet in diameter; if made of iron, it may be much smaller. It should be strong and firm, as for mill gearing.

**H**, fig. 1 and 2, the Crank Shaft. This must be of the firmest kind of timber, 14 inches diameter, and 15 feet long. One end of this shaft runs on a gudgeon, which rests in a block or gallews, which gallews hangs from the beam *i i*. To the other end is attached the crank, by a wing.

**I I**, fig. 1 and 2, represents the Wallower or Pinion. This must be precisely one half the size of the driving wheel, whatever that may be.

**K**, fig. 1 and 2. In fig. 1 and 2 are seen the edge view of the small cog wheel which is attached to the crank shaft near the end next the press.

The wheel *k 2* is supported by a short shaft, one end of which rests in the beam *d d*, and the other in a beam passing between, and supported by, the two small posts last named. Upon the shafts of the wheel *k 3* are placed four kams, which roll directly under the centre of the wrists. These kams, as they roll round, press down upon the ends of the levers which are attached to the rods of the piston, and thus raise the bottom of the moulds. The fulcrum upon which these levers rest must be precisely two-thirds of the way from the point where the kams act upon them, to the point where they are attached to the rods. The kams being 12 inches long, the bottom of the moulds will raise six inches, which is the proper distance.

**L L L**, fig. 1 and 2, represents the Crank. This is a casting of about four hundred pounds weight; and it is somewhat difficult to give a clear description of it, either in language or by a draft. The end towards the driving wheel is composed of a wing, (such as usually forms a part of a wing-gudgeon,) which goes into the crank shaft. The bearing next the wing must be 8 inches long by four and three fourths inches in diameter. The first angle, which must be four and one-half inches square, and so long that it will bring the wrist eight and one-half inches from the bearing just described, that is, by counting from the centre of the bearing to the centre of the wrist. The first wrist, which must be four and one-fourth inches diameter and five inches long, in

the clear. The second angle, four and one-fourth inches square and eight and one-half long, counting from the centre of the wrist back to the centre of motion in the crank. The centre bearing, four inches diameter and seven inches long. We have now got through the description of the first half of the crank, (or half next the driving wheel,) with the two first bearings. The second wrist must not be in an opposite direction from the first, but on an angle of 90 degrees from it, taking the centre of motion in the crank as the angular point: or, in other words, when the wrist next the driving wheel is up to the highest point of the circle which the wrist describes, then, and at that moment, the second wrist must be on a level with the respective bearings of the crank.

**M M**, fig. 1 and 2, the pole, or arm to which the team is hitched.

**d d**, fig. 1 and 2. These beams sustain the two outer bearings of the crank. In fig. 1 the ends of these beams only are seen. They should be so framed into the posts that their upper edges shall be 37 in. lower than the bottom of the cap.

**f f**, fig. 1, shows two of the corner posts of the wheel house. These should be one foot square and 13 feet long, (besides the tenons.)

**g g**, fig. 2, the two outside beams of the wheel house. These should be one foot square, and 30 feet long in the clear. **g g**, fig. 1, shows where these beams are inserted in the posts, that is, one foot below the top of the posts.

**h h**, fig. 1 and 2, the plates of the wheel house, 10 inches square, and 32 feet long.

**i i**, fig. 1 and 2. In figure 2 are seen the two centre beams which support the upper end of the driving wheel shaft, and one end of the crank shaft. These beams should be at least 15 inches deep and 12 inches wide. They are two feet apart in the clear, and are framed into the posts on a level with the outer beams.

**k**, fig. 1 and 2, the head block which sustains the upper end of the driving wheel shaft. This block should be 4 feet long, 1 foot square, and boxed into the upper edges of the beams 2 inches.

**l l**, fig. 1 and 2; these are mere braces, to keep the frame firm in its place, so that the gearing will run steady. Too much care cannot well be taken in the construction of the wheel house to make it firm and incapable of swerving.

**m m**, fig. 1; these posts sustain the centre beams; they must be 1 foot square, and 13 feet long in the clear. Braces, of at least 6 feet in length, should be framed from these posts to the centre beams.

**n n**, fig. 1, one of the sills of the wheel house. The sills should be of durable timber, 1 foot square, and long enough to form a square of 30 feet in the clear.

**o o**, fig. 2, the horse track, which must of course be as large as practicable in a square of thirty feet.

**p p**, fig. 2, the four pitman rods which run from the levers to the crank, and serve to straighten and bend the levers.

**q q q**, figure 6, the levers and the denser. The bodies of these are 3 inches square, or as near that shape as the patterns can be drawn from the sand; the joints six inches wide, with projections on the outside of the joints to receive the snibls or hooks which hold the levers together, (*q 1*.) The convex and concave half circles upon which the levers bend, should be one inch in diameter. The manner in which these circles should be cut, is obvious in fig. 7, which represents an edge view of the levers and denser. The levers should be precisely 36 inches long, counting from the angular points, and the denser 41 inches long; this, when the levers are straight, will give a distance of 9 feet 6 inches from the bottom of the cap to the bottom of the denser, (allowing one inch for the head block.)

**r r**, fig. 6, the bottom of the denser and top of the piston. The size of these must be the same as the flat surface of the brick, which size will be regulated by the custom of the place, or the views of the builder. It may be well to remember, however, that a brick 9 inches long, 4 1/2 inches wide, and 2 1/2 inches thick, contains a fraction over 100 cubic inches of clay—whereas, a brick 8 inches long, 4 inches wide, and 2 inches thick, contains only 64 cubic inches. It will therefore take less than two-thirds the force to press a brick of the latter than of the former description.



HARRNESS' NEWLY INVENTED BRICK-MAKING MACHINE.

Fig. 1.

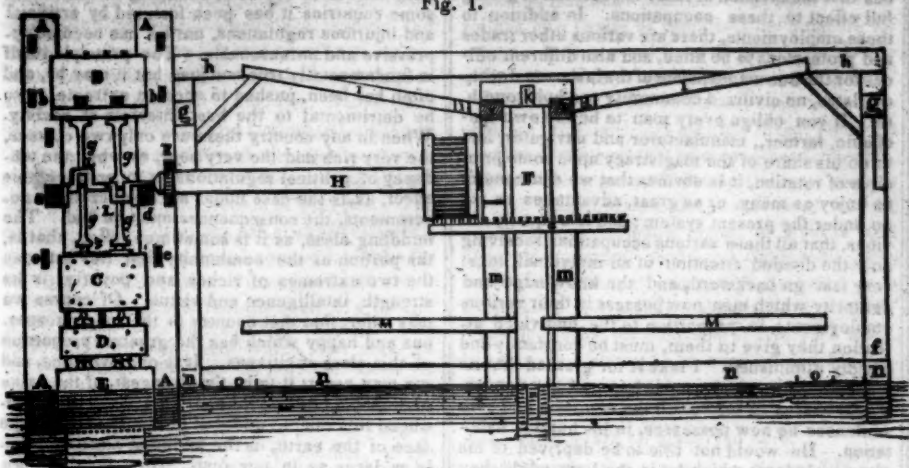


Fig. 2.

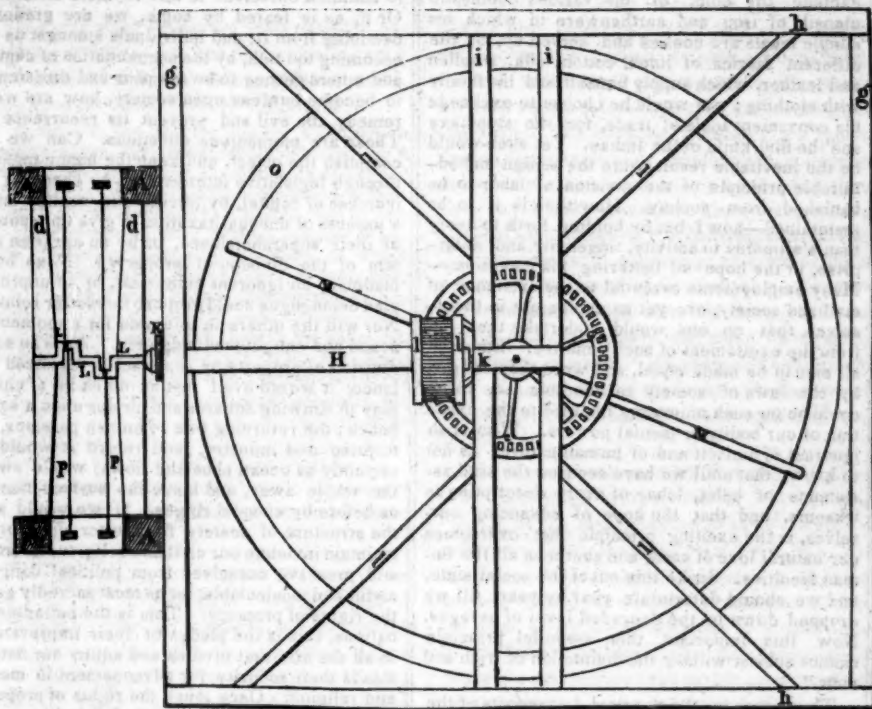


Fig. 6.

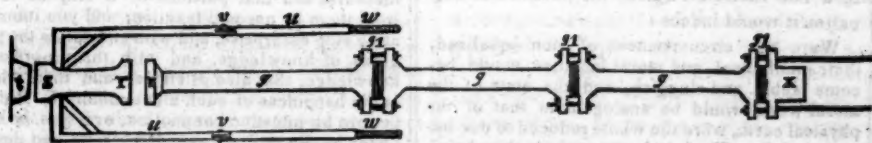


Fig. 6, the bottom of the piston. This should be 6 inches long, and 4 inches wide, with a cavity in the bottom of the right shape to receive a conical projection of the foot block; this conical projection of the foot block should be 2 inches square at the base, and 2 inches high, running to a point in the centre. This shape of the piston and foot block is necessary to make the piston, when it falls, invariably come to the same position. The piston must be cast with a hole through it large enough to receive a cross bar, 2 1/2 inches deep, and 5/8ths of an inch thick. [See fig. 6.] To each end of this cross bar is attached a rod 3/4ths of an inch square. These rods must 19 1/2 inches apart, (from outside to outside,) and firmly braced. There must be a joint in the rods at v, and perhaps it may be best to have another immediately below where the rods are attached to the raising levers. The raising levers must be forked near the point where they rest upon the fulcrum, so as to meet the upper ends of the raising rods. In order to have these le-

vers perfectly inflexible, they must be covered on the upper side with a thin bar of iron, which must be spiked or screwed firmly to the wooden part of the lever. The screws at the top of the rods are for the purpose of fastening them to the raising levers, and keeping the work at all times tight and in its proper place. The top of these rods, from the joint at v, must be inclined about two inches inward, so as to prevent the raising levers from interfering with each other. t, fig. 6, the foot block. This should be 5 inches deep, and a little smaller at the top than the bottom of the piston, so that the clay which may happen to fall through, or round the mould, shall not rest upon the block. The bottom of this block should be at least one foot square; but all, except the part which comes in contact with the piston, may be only 1 inch thick.

A machine with two pair of moulds only, will make from fifty to seventy thousand bricks per week. But if the regular market be large, it can, by using a steam engine of 10 horse

power, work sixteen moulds, (four on each side of the wheel house,) and make two hundred thousand bricks per week. It will probably be the better way, however, to multiply the number of presses, rather than the number of moulds in a press.

In order to make the best quality of brick, the clay must be pulverized, and rendered completely clear of lumps and small stones. This is easily done when the clay has been thrown up during the winter and frozen. All that is necessary to do with frozen clay is to pass it through a coarse wire rolling screen. This screen may either be turned by hand, or attached to a drum connected with the driving wheel. To screen clay by hand is about the same labor as to make it into mortar. Every manufacturer can have his own plan for pulverizing his clay.

The clay, to be worked to advantage, must be in a dry state—not so as to become dust, but so that it will in a measure lose its adhesive qualities. In this state, when pressed, the air will escape out of it, and it will become solid. But if it be moist, it is impossible to press it—or rather, the water renders it so elastic that it will not “stay pressed.” I would advise the manufacturer to connect with his wheel house a large shed, sufficient to protect clay for 150,000 bricks. Into this shed let him wheel clay during the winter, so as to have the whole of it frozen. He will then be able to supply the market in the spring with one kiln of brick as soon as they may be wanted. The balance of the clay required for the season should, during the winter, be thrown up into ridges. It can then be taken into the shed during dry weather, always taking care to have the shed so full that the press may not have to stop during a week of wet weather.

**THE TOMATO.**—Few vegetables of equal value are so little known through this country. None are more readily raised—none better repay the cultivator.

The tomato, or love apple, is a luxury in common use through the south of Europe. In France and Italy, particularly, it is largely employed in culinary preparations. Either raw or stewed, in soups, or fricasees, for gravy, or catsup, as well as for pickles and sweetmeats, its utility is such that it would not readily be dispensed with by those who have given it a fair trial in these various ways. The experience of several years enables me to recommend the tomato to all who desire the acquisition in their gardens of a cheap luxury. For salubrity none can surpass it. It has been constantly used in various forms at almost every meal during the last three or four seasons, by myself and several acquaintance, whose health continued excellent, even when the prevalence of the cholera banished fruits and vegetables generally from most tables.

Should any who are now unacquainted with the tomato, make the experiment of raising a supply, they may add to the simple luxuries of the table by adopting these directions for making tomato catsup:

The tomatoes, when fully ripe, should be bruised and boiled slowly for half an hour—then strained through a cloth, and the liquid boiled for another half hour, after adding salt and spices, but without any admixture of water. The scum should be carefully removed, so as to render the liquid as pure as possible. It should be bottled and kept in a cool place. After it has stood a short time, should any sediment be discovered in the bottles, (and in order to know with certainty, clear glass bottles would be the best for this use,) the liquor should be poured off into other bottles. In this way catsup of excellent quality—preferable, in my judgment, to that from mushrooms, and clear as choice Madeira—can be readily made, in greater quantity, and with less trouble, than in the common way. RHO.—[Genesee Farmer.]



## NEW-YORK AMERICAN.

FEBRUARY 14-20, 1835.

## LITERARY NOTICES.

A SERMON PREACHED BEFORE THE GOVERNOR AND LEGISLATURE OF MASSACHUSETTS, ON THE ANNUAL ELECTION, JAN. 7th, 1835, by JONATHAN M. WAINWRIGHT, D. D., Rector of Trinity Church, Boston. Boston: DUTTON & WENTWORTH, Printers to the State.—It is in some sort a rule with us, in these occasional literary notices, to confine ourselves, in regard to sermons and other analogous publications, to a mere mention of their title and subject. In the case before us, however, both the topics selected and the manner of treating them, induce us to depart from this rule.

Called to preach, according to a good old custom, the annual sermon before the Government and Legislature of Massachusetts, Dr. Wainwright happily availed himself of the occasion "to exhibit religion in what may be called its temporal aspect, as advancing and sustaining principles essential to the welfare and happiness of civil society." The text he chose was from Deuteronomy xv. ii. "The poor shall never cease out of the land," and the lesson which he thence eloquently inculcated was, that *inequality of individual wealth is the ordinance of Providence, and essential to civilization.* That the preacher acquitted himself ably, it is only matter of course for one who knows him, to say—that he acquitted himself satisfactorily to his auditors, is evinced by the handsome edition of the discourse now before us, published at the request, and by the order, of the Senate of Massachusetts.

We have read this discourse with unfeigned gratification, and wish it could be read by all, whose heads may have been turned by the idle and wicked doctrines—with which selfish and heartless demagogues have so recently excited our happy country—of incompatibility between the rich and the poor. There is no such incompatibility; but, on the contrary, mutual dependence and mutual interests. Nor is this inequality of condition among men, the result of political institutions, though undoubtedly it may be greatly aggravated thereby. It is founded in nature, and sanctioned by revelation; and as by man's wisdom or agency it was not ordained, so neither by man's wisdom or agency can it be abolished. But we are sermonizing ourselves, when a more accustomed and far more capable Preacher invites the attention of our readers.

The scope of the Sermon is—*first*, to interpret accurately the broad assertion of the text; *secondly*, to prove that the inequality of condition which it implies, is essential to the political, intellectual, moral and religious improvement of the human race; and *lastly*, to point out how "the more grievous and repulsive circumstances attending upon this constitution of the social state, may be meliorated, if not entirely removed."

From the second head we make the following extract:

"But follow out the consequences resulting from diversity in the condition of men, and you will see accumulated reasons to assent to, and admire, this ordination of Providence. No one who has for a moment thought of the subject can doubt, that in order to the comfort even, of civilized society, very many different occupations must be performed, and must be carried on at the same time—lands must be tilled, houses must be built, fabrics for clothing must be made, implements of various kinds must be formed, and vessels must be constructed and navigated. It is equally obvi-

ous that the division of labor is essential to giving full effect to these occupations. In addition to these employments, there are various other trades and professions to be filled, and also different offices for the due maintenance of the laws—and without laws, no civilized community can hold together. If you oblige every man to be his own mechanic, farmer, manufacturer and navigator, and to do his share of the magistracy upon some principle of rotation, it is obvious that we can none of us enjoy as many, or as great, advantages as we do under the present system; and it is equally obvious, that all these various occupations, receiving only the divided attention of an individual, must very fast go backward, and the knowledge and dexterity which men now possess in their various employments, in proportion to the undivided attention they give to them, must be constantly and rapidly diminished. I take it for granted that no man, even in very moderate circumstances, would choose to relinquish the comforts and conveniences he now possesses, in his humble habitation. He would not like to be deprived of his glazed windows which let in the light while they exclude the cold, of the various domestic utensils of iron and earthenware in which his simple meals are cooked and served up, or the different fabrics of linen, cotton, silk, woollen and leather, which supply himself and his family with clothing; nor would he choose to exchange his convenient tools of trade, for the stone-axe and the flint knife of the Indian. Yet such would be the inevitable result, were the benign and admirable principle of the division of labor to be banished from society. How then is it to be maintained—how? but by holding forth to every man a stimulus to activity, ingenuity and enterprise, in the hope of bettering his condition.—Many employments essential to the existence of civilized society, are yet so unpleasant in themselves, that no one would undertake them but from the excitement of such a motive. But were all men to be made equal, and were they obliged by the laws of society to continue so, there could be no such animating impulse to the exertion of our bodily or mental powers. Who is so ignorant of himself and of human nature, as not to know, that until we have secured the kind assistance of habit, labor of every description is irksome, and that the hope of advancing ourselves, is the exciting principle that overcomes our natural love of ease, and sharpens all the human faculties. Strike this out of the social state, and we should deteriorate year by year, till we dropped down to the degraded level of savages. Now this important, this essential principle cannot subsist without the distinction of rich and poor."

Thus much for the physical discomforts of the state of equality. The next extract illustrates, by a fine rhetorical figure, the intellectual stagnation it would induce:

Were the circumstances of men equalized, their intellectual and moral faculties would become feeble and sluggish, and the state of the moral world would be analogous to that of our physical earth, were the whole reduced to one unvaried plain. The whole atmosphere then being one dense, unwholesome vapour, the whole land, one dead and dreary flat, the whole ocean, one waveless and stagnant pool, our world would be fit only for those huge misshapen creatures, the next remove from senseless matter, such as geologists have discovered, and such as existed ere the Almighty Architect broke up the fountains of the great deep, and caused the mountains and hills to pierce the skies and condense the vapors for refreshing showers, the healthful winds to blow about them, the joyous rivers to pour down from their summits, carrying verdure and fruitfulness to the humble valleys beneath, and thus rendering it capable of supporting active life, in varied and countless forms of beauty and utility to man.

One only extract more, and we must, though reluctantly, conclude:

The unequal distribution of wealth then, we believe to be not only an unalterable consequence of the nature of man, and the state of being in which he is placed, but also the only system by which his happiness and improvement can be promoted in this state of being. We do not

deny that there are evils attending it, and that in some countries it has been fostered by artificial and injurious regulations, until it has become oppressive and unreasonable. The principle itself is fundamentally true and just, but it may be, and often has been, pushed to such an extreme as to be detrimental to the best interests of society. When in any country there are only two classes, the very rich and the very poor, or when the tendency of political regulations is to produce this effect, as is the case under all aristocratical governments, the consequences must be bad. The middling class, as it is sometimes called, that is, the portion of the community that lies between the two extremes of riches and poverty, is its strength, intelligence and virtue. Of course we may infer, that that country is the most prosperous and happy which has the greatest proportion of this class of citizens. It is one evidence, and we may assert it to be the strongest, of the value of our public institutions, that they have produced this effect, and that in no country on the face of the earth, is the middling class relatively as large as in our own. How then are we to maintain ourselves in this enviable condition? Or if, as is feared by some, we are gradually declining from it, and individuals amongst us are becoming too rich, by the accumulation of capital, and others getting to be too poor and threatening to become burdens upon society, how are we to remedy the evil and prevent its recurrence?—These are momentous questions. Can we accomplish the object, and keep the happy medium through legislative interference, by checking the increase of capital, by forcing the wealthy under a process of unequal taxation to give up a portion of their superabundance, or by an agrarian system of the division of property? None but a madman, an ignorant enthusiast, or an unprincipled demagogue could propose this latter remedy. Nor will the others be tolerated for a moment by sound and enlightened judgment. As to an equal division of property by some act of legalized violence, it would avail just as much as a child's play in drawing squares and circles upon a sandy beach; the returning tide of human passions, enterprise and industry, (and return it would as certainly as ocean ebbs and flows) would sweep the whole away, and leave the surface marked as before by unequal ridges. If we would save the structure of society from utter dissolution, maintain inviolate our civil and religious liberties, and preserve ourselves from political dangers, awful and incalculable, let us most sacredly guard the rights of property. This is the palladium of nations, this is the pledge of their improvement in all the arts that civilize and adorn our nature, this is their security for advancement in morals and religion. Once touch the rights of property, let it be felt that men are impeded and harassed in their efforts to obtain it, that its possession is insecure, and that portions of it may be taken from them by unequal taxation, and you immediately stop enterprise, and with enterprise the progress of knowledge, and with the progress of knowledge, that also of virtue—and then where is the happiness of such a community? It must be torn by intestine commotion, or if this is kept under by the military arm of a strong and despotic executive, it must prepare to see its commerce sicken and die, its agriculture decay, its manufactories silent and in ruins, its schools deserted, its roads impassable and infested with banditti, and all its institutions relapsing into a state of Turkish barbarism.

ALLEN PRESCOTT, or the fortunes of a New-England boy; by the author of "Morals of pleasure," &c., 2 vols.—New York, HARPER & BROTHERS. It requires no great discrimination to find out that this novel is written by a lady, or that she is one thoroughly imbued with American feelings and principles. The hero, Allen Prescott, the only son of a destitute and widowed mother, with his New England education, hardihood of character, and uprightness of principle, begins the world without any thing but hope and energy, and arrives where so many living, have under almost similar circumstances, arrived, at honor and fortune. This simple story, intersper-



sed with incidents of village life, of early, interrupted, but finally, triumphant love, is made the vehicle of illustrating the real equality of our political institutions, and the opportunities they open alike to all, of personal distinction. The style is easy and equal—though we confess our dislike of the frequent introduction of the ungrammatical peculiarities of Yankee speech—accurate, though they doubtless are, as records of real life. The sentiments and reflections are always praiseworthy, and often very happily expressed. Take for instance this description of maternal love:

"Some one has said that the heart of a mother is the master piece of Nature's works. It is, at least, that portion of them which least asks the aid of culture. She may be required to be instructed how to govern, to punish, or to teach; but to love—through evil as well as good report—constantly, fervently, deeply, to the sacrifice of herself, even unto death, what mother, if she be true to the instincts of her nature, does not know."

In the only other extract we have room for, our readers will find a just and discriminating view of the influence and effect of our political institutions, upon the mass of native Americans:

"There is in the laboring classes (a distinction growing every day more reputable) not only a practical good sense and susceptibility of refined and generous emotions, but a patriotism, a true estimate of our blessings as a people, and of our individual responsibilities, and on subjects of national interest, a justness of thinking, of which you are little aware. You profess to love your country; but learn to reduce this abstract idea to the practical test of love of countrymen—not a sympathy with a select few, having the same advantages and pursuits with yourself; your heart must warm to every one who worthily bears the name of an American! and must sincerely approve of those institutions by which you, as an individual, are rendered of comparatively small importance, while the mass is elevated."

There is good feeling and sound judgment in these sentiments, and with these we take leave of the book.

**THE PRINCESS, or the Beguine;** by LADY MORGAN. 2 vols. Philadelphia: Carey, Lea & Blanchard.—What a Princess is, all our readers know, or think they do; but a Beguine, what is that? Nothing more than a Sister of Charity, vowed to works of kindness and benevolence, gratuitously rendered to the poor, the sick, and the dying. The title, therefore, of this new novel of *Miladi Morgan*, would seem to embrace the two extremes of human existence, the favorite of fortune and of a court, and the humble attendant upon the pallets of the outcasts of the world. How the apparently discordant attributes of these two conditions, are brought together and harmonized, it is not for us to reveal, for that would spoil much of the interest of the story. We, therefore, only add, that there is much of what purports to be English high life, but which, in the scale of morals, may be set down as very low and degraded life—some *connoisseurship* and agreeable gossip about Flemish pictures, Flemish architecture, and Flemish history, and a great deal of politics about Belgium and the Belgian Revolution of, we believe, four days.—It is written throughout in the sprightly, dashing vein of Lady Morgan.

**THE PENNY CYCLOPEDIA OF THE SOCIETY FOR THE DIFFUSION OF KNOWLEDGE:** Vol. I. London, CHARLES KNIGHT, New York WM. JACKSON, Boston MUNROE & FRANCIS.—The title of this volume is so explanatory, and the character of the weekly numbers in which the Cyclopædia is distributed, is so well known, as to render any re-

marks on this head from us, unnecessary. The volume now before us comprises the numbers for a year. It is a royal 8 vo. of 580 pp. of double columns—and costs neatly bound in calf \$2!

As a book of ready reference, such a work is of great value, and this one, has in that view this peculiar advantage, that whereas other Cyclopædia, as give under a general head an elaborate treatise on each branch of knowledge, and refer for the explanation of particular terms, to what is said under that general head—this Cyclopædia gives under each term, as it occurs alphabetically, such explanation as to render it abundantly intelligible. The superiority, for occasions of reference merely, of such a plan will at once be perceived.—This volume extends through A to Andes. The plates, cuts, and engravings &c., as in the separate numbers, are all preserved here.

**WONDERFUL CHARACTERS** by HENRY WILSON: 1 Vol. 8 vo. New York HARPER & BROTHERS, for sale by WM. BURNETT. Here is a very curious and handsomely printed volume, which unannounced and without signal note in advance of any sort, comes before the public in a most agreeable shape. We know not whether it is a republication from England or whether the collection embodied in these pages is now for the first time given to the light—but we do know that we have a capital assemblage of "Wonderful Characters" high and low, with engravings of some of them worthy of the pencil of Cruikshanks. Beggars and princesses, *Joan of Arc*, and *Bampfylde Moore Carew*, figure alternately and make up a gallery of portraits in which "the ultimities and summities" or the lowest and the highest pitch of which man's nature is susceptible, are exhibited and personified.

**THE FOREIGN QUARTERLY REVIEW**, for Dec. 1834; American edition, Vol. 1, No. 2, being No. IX. of the Republication of the Foreign Reviews, by THEO. FORSTER: New York, WM. VAN NORDEN.—Several papers of interest in this number will reward the attention of readers. One on the state of Italy—in reference to a publication by the Italian *Beltrami*, who put forth several years ago a ridiculous book in this country, claiming to have discovered the sources of the *Mississippi*—presents some views of the actual state of that country, new to us. That on the Viscount *Artincourt's* new novel—historical, polemical, and anti-Louis-Philippist—of which the Brewer King of Ghent, *Jacques Van Artevelde*, is the hero; and a third on the Prussian Government and its administration, where the paternal wisdom and affection of a despotic sovereign, contrast strongly, by their beneficent results, with some of the realities of the rule of our republican Chief Magistrate—will be found interesting.

**A PRACTICAL SUMMARY OF THE LAW OF ASSIGNMENTS IN TRUST FOR THE BENEFIT OF CREDITORS, WITH AN APPENDIX OF FORMS;** by JOSEPH K. ANGELL. Boston: Hilliard Gray, & Co.—This handsomely printed volume exhibits, in a methodical form, and within a small compass, a mass of information in relation to the law of assignment, which will prove very valuable to persons engaged in trade. As a general rule, it is about as absurd to become one's own lawyer, as for "every man to be his own doctor," as the advertisements of *Emphyria* have it; for in either case, people are equally prone to quack their persons or property, to death. But there are branches of the profession with which it is important that every one should be in some de-

gree familiar; and in a commercial country like ours, where property is so fluctuating, every business man should be acquainted with the relations created between debtor and creditor, and learn in what manner, and subject to whose direction, the effects of an insolvent debtor are to be distributed among those to whom he is indebted, and those who may have become his sureties. The infinite diversity of cases that continually arise, will indeed render such knowledge of but little service to himself unless backed by legal advice: but the attainment of a certain degree of information, will teach him at least when to resort to a practitioner: and we do not remember a work from which such knowledge may be more readily gathered, than from that before us.

The great number of cases cited, with the analytical table of contents, must render this a very convenient volume to the junior members of the profession.

**THE KNICKERBOCKER**, for February; N. York, J. DISTURNELL.

**THE U. S. MILITARY AND NAVAL MAGAZINE**, for February; Washington, BENJ. HOMANS.

These are the only two periodicals for the month that have reached us.

The *Knickerbocker* has a pleasant variety, and some good articles. Of these, we specify the first on "Life," by Dr. S. L. Metcalf—and the Historical notice of Columbia College. The Cruise of a Guinea-man, is extravagant and impossible, though evincing considerable power. We take an extract from the notice of Columbia College, which only does justice to the value of, and course of instruction pursued in, that institution:

In October, 1829, the office of President became vacant by the death of Dr. Harris, who had continued to an advanced age, with great zeal and fidelity, to preside over the institution; and early in the following December, the Hon. William A. Duer, then one of the Circuit Judges of this State, was elected to supply the vacancy.

On the first of January, 1830, the new President entered upon the duties of his office, and within the same month, the system of instruction was extended by the establishment of a *Literary and Scientific course*, distinct from the full course, in which latter the classical studies are included, and students were allowed to be matriculated for any of the various branches composing the new course, in which also were comprised the Modern Languages of Europe.—Free scholarships were established by the bounty of the Trustees, the nominations to which were vested in each of the religious denominations in the city, and in its leading institutions for the promotion of knowledge; and the Professors of the college were authorized to deliver Public Lectures at extra hours in any of the branches of Literature and Science, falling within their respective departments.

The sub-graduate course of instruction was subsequently enlarged by the addition of lectures on the Evidences of Christianity,—by the extension of the English studies in the younger classes, and enlarging those in the departments of Natural Philosophy and Chemistry. A course of lectures on the Constitutional Jurisprudence of the United States has since been added to the studies of the senior class, and directed to be delivered by the President. To enable the Faculty to discharge these increased duties, one hour was added to the daily attendance of the students, so that each class now attends one hour every day in each department of its studies; or four hours daily, exclusive both of the previous religious service, and exercises in declamation in the Chapel; and of the subsequent attendance of one hour of those who pursue the study of Hebrew, or any of the Modern Languages.

The Grammar School of the college was also placed upon a footing which has rendered it more



extensively useful, as well as more efficient as a preparatory seminary to the college, and the immediate superintendence of it committed to the Jay Professor of the Ancient Languages, as Rector of the Grammar School. A junior department has since been added, and the number of instructors increased to eight in the Classical, Mathematical, and English departments, besides two of Modern Languages; so that a pupil may be received into the minor department of the Grammar School as soon as he can read the English language, and in nine or ten years be conducted upon one uniform system of instruction, through both the preparatory school, and the college, and at the end of that time receive his first degree; or in five or six years he may receive a complete English and Mathematical education, including any of the modern languages, so as to fit him for business without entering the college; or he may, if duly qualified, enter either the Grammar School or the college at any stage of their respective courses.

As the institution now stands, the Faculty of the college consists of a President and five Professors; all of whom the students of the full sub-graduate course are required to attend, and any of whom, except those of Greek and Latin languages, students of the Literary to Scientific course, may attend. These form the Board of the College, to aid the President in administering its discipline. There are besides, a Professor of Law, Professors of the principal modern languages of Europe, and one of the Hebrew language, upon any of whom the attendance of the students of both courses is voluntary; but these are not members of the Board.

The general course of instruction in the college, may be considered as three fold, viz:

1. *The Full Course*, including every branch of collegiate study, and entitling the successful student to the degree of *Bachelor of Arts*.

2. *The Literary and Scientific Course*, which excludes the study of the Ancient Languages, but includes that of the Modern. To the successful student in this course is given, upon a vote of the Board of Trustees, a College Testimonial, differing but in name and extent, from the Academic degree of the full course.

3. *The Voluntary Course*, which is intended for graduates and others, who have made some proficiency in learning, and is limited solely by the wishes of parents, or of the applicants themselves, both in regard to extent and duration, and admits, also, of a higher course of instruction in the Greek and Latin languages.

An attendance on the first course requires the student to be matriculated, and forbids all professional studies, and pursuits. An attendance on the second, also requires matriculation, but admits of professional studies at the same time.

An attendance on the third course is altogether voluntary, requiring no matriculation, and capable of being rendered consistent not only with professional pursuits, but even with mercantile and mechanical employments.

No student is admitted into the Freshman, or lowest class of the full course, unless he be accurately acquainted with the Grammar of both the Greek and Latin tongues, including such rules of Prosody as may be applicable to the Poets he is required to be examined upon. He must be master of the greater part of Caesar's Commentaries, of the principal Orations of Cicero, of the first eight Books of the *Æneid*, Sallust, certain portions of the Greek Testament, Jacob's Greek Reader, and parts of the *Cyropædia* and of the *Iliad*. He must also be able to translate English into grammatical Latin, and be well versed in Arithmetic and Algebra, as far as the end of Simple Equations, and with Modern Geography; and no student is admitted into an upper class without being master of the previous part of the course,—nor are any admitted from other colleges, without a certificate of good standing.

The full course of studies in the different classes is as follows, viz:

**FIRST YEAR. Freshman Class.**—Parts of Livy and Horace, Dalsol's *Collectanea Græca Majora*, Latin prose compositions, Roman Antiquities, and Ancient Geography, the Elements of Geometry, Algebra, Universal Grammar, English Composition, and outline of Ancient History, with Chronology.

**SECOND YEAR. Sophomore Class.**—Virgil's *Georgics*, the *Satires* and *Epistles* of Horace, Cicero, *de Senectute* and *de Amicitia*, parts of Tacitus, Dalsol's and Dunbar's *Collectanea Græca Majora*, Homer's *Iliad*, Latin composition in prose and verse, Greek and Roman Antiquities, plain Trigonometry and its applications, Algebra, Elementary Chemistry, Elements of Rhetoric and Oratory, English Composition and outline of Modern History with Chronology.

**THIRD YEAR. Junior Class.**—Cicero *de Oratore* and *de Officiis*, Terence, Horace's *Art of Poetry*, Longinus, Homer's *Iliad*, continued, Latin composition, Greek and Roman Antiquities, Spherical Trigonometry, Conic Sections, Analytic Geometry, Fluxions, Natural Philosophy, including Chemistry, applied to the Arts, Principles of Taste and Criticism, English Composition, Logic, General History of the Literature of Europe, Ancient and Modern, with a Critical History of English Literature.

**FOURTH YEAR. Senior Class.**—The classical part of the course of this year is conducted in such a manner as the Professors of Languages, with the assent of the President, may direct.—The Greek Tragedians are the authors principally read. Fluxions, Natural Philosophy, including Mechanics, Astronomy, according to the methods of Newton, La Place and La Grange, History of Philosophy, Intellectual and Moral Philosophy, Political Economy, Evidences of Christianity, Constitutional Jurisprudence of the United States, and English Composition.

All the classes are, moreover, exercised at stated periods in declamation upon subjects connected with their respective courses. There are two public examinations of all the classes every year. The first, or intermediate examination, commences on the first Monday in March; and the second or concluding examination on the fourth Monday preceding the vacation, which begins on the first day of August, and ends on the first Monday in October.

An honorary testimonial decorated with suitable devices, and bearing the seal of the college, is adjudged at the intermediate examinations to the student in each class who is most distinguished for his general merit; and an additional testimonial to the best in each department of study; and at the concluding examination, a gold medal is adjudged to the student of the best general standing in each class, a silver medal in each class to the best, and a bronze medal to the next best in each department; all of which are announced and delivered at the annual commencement, held on the day subsequent to the opening of every term.

Of this number of the *Military and Naval Magazine*, we have only room to speak in terms of general praise, and to express our satisfaction at finding by a notice at the close of it, that its patronage is largely increased. It should be further increased.

#### SUMMARY.

ST. LOUIS, JAN. 20.—*Luck is a fortune.*—The Steamboat *Warsaw* arrived at this port on Saturday last from New Orleans. The *Warsaw* was seriously disabled by striking a snag below Ste. Genevieve Island, some of the cargo is in consequence damaged. The snag made a large hole in the bow of the boat, and the pilot at the wheel, discovered that she must go down, altered her course so as to run her on the bar nearly opposite. Strangely enough, in steering on this course the pilot, without seeing it, ran the boat directly athwart of the wreck of the Steamboat *Illinois*, which was sunk some years since, and so great was her head way that the bow was lifted out of the water, and safely moored. She was thus afforded an excellent opportunity of making the necessary repairs. The boat remained in this position for twelve hours; when the river, as good fortune would again have it, rose sufficiently to drift her clear of the wreck.

The Mississippi is rising slowly, and is clear of ice below this point. Thus far, we have had a remarkably mild winter—and should it continue for a few days more, we need expect no further interruption to navigation. The *Olive Branch* and *Potosi* have departed for Louisville.

Captain Gibson of barque *Kent*, at Boston, reports, that just as he was leaving St. Helena, (28th Dec.) the American Consul informed him that the British trade with China had been stopped by the Chinese Government.

**THE FAITHFUL AND SAGACIOUS DOG AGAIN.**—The Baltimore American in alluding to the recent fires, has this paragraph:

A circumstance came to our knowledge yesterday, which shows that there must be incendiaries among us. The Foreman of our office, soon after he reached his dwelling in Pitt street, between eleven and twelve on Thursday night, had his attention arrested by an unusual barking of his dog, in the yard. On going out to ascertain the cause, the sagacious animal continued to bark, and ran several times to the stable door, as if some one were within. The manner of the dog at once led his master to open it, when he found a parcel of combustibles burning on the floor. They had apparently been but a short time on fire, and were extinguished without difficulty, but it is evident that but for the singular warning of the dog the stable would have been fired.

**MEDITERRANEAN SQUADRON.**—The *Gazette* publishes the annexed extract of a letter from the Fleet Surgeon of the Mediterranean Squadron. It is dated on board the United States Ship *Delaware* in Nov.

"I am still in the land of the living, after having been exposed to scenes almost calculated to make death too familiar. Our ship remains in port with the *Shark*; we sent their men, as fast as they were attacked, to an island in the harbor. It has been a melancholy scene. About 20 of our men have died, and two were buried this day; but from the favorable state of those now under care, and a change for the better in the weather, this afternoon, I entertain strong hopes that the worst is over. No officer has died on board, and but one petty officer, the acting boatswain of the *Shark*, who died on the 15th inst."

**Attempt by the Malays to cut off and Murder the Crew of another American Vessel.**—The barque *Kent* arrived yesterday from Pulo Penang, coast of Sumatra, brings intelligence of an attempt to cut off the barque *Derby*, of Salem, belonging to Stephen C. Phillips, on the coast of Sumatra, by the Malays. The information is conveyed in the following letter from Captain Felt, master of the *Derby*, and published in the *Salem Observer* of this morning:

On the 10th June, 1834, lying at Trabangun Tchute, barque *Derby*, of Salem, loading pepper; while on shore that day, received information that a prow in a neighboring port was preparing to come that night and cut me off; I went on board immediately, and made preparations for the defence of the vessel, and kept a vigilant watch through the night. As the day began to dawn, discovered the prow right ahead, coming slowly down upon me, and within musket shot.

I opened my musketry and cannon upon him, upon which he got his head towards the sea, and appeared to be getting off as fast as he could, soon after which a strong breeze came up, and I saw the prow pass in shore towards the village of Qualee Ralishohn. I afterwards learnt from several sources that the prow came from Qualee Asehan, and had 12 men on board; one of which came to Baccougang, while I lay there, and stated, that they started with creeses only, calculating to find us unprepared to receive them—to dagger every person on board, and to possess themselves of the money—and that they took freely of opium in order to be more desperate."

Capt. Felt, in a letter to his owner, says:—"It is high time that the American Government had a sloop of war on this coast from March to August, (during the pepper season) to protect our commerce. She would do a great deal of good to the Americans."

I will be remembered that the ship *Henry Ewing*, of Boston, was obliged to leave the coast of Sumatra, about the same time of the occurrence related above, on account of an attempt to cut her off at Asselian.—[*Boston Transcript*.]



The extreme cold of Sunday, the 8th inst., extended to Charleston, S. C., where the thermometer, at day break, was at zero! a temperature (according to the Southern Patriot) 8 or 10 degrees colder than ever before experienced in that city.

The number of American whale ships at sea, on the 30th of January, ult, was 257, comprising an aggregate of about 1,000,000 tons, and manned by about 9000 seamen. There were in port at the same date, 16 whale ships, making a total of 273. The number of sperm whale ships which may be expected to arrive within the present year is estimated at 70, and their cargoes at 135,000 bbls. oil, valued at more than three million dollars.—[Journal of Commerce.]

**NAVAL CHAPLAIN.**—We are happy to learn that the Rev. C. S. Stewart has been assigned as Chaplain to the Navy Yard at Brooklyn.

**Death of Gen. Hampton.**—General WADE HAMPTON, of South Carolina, died at his residence in Columbia, on the 4th inst., in the 81st year of his age. Gen. Hampton served with great gallantry in the war of the revolution, and though then a mere youth, was, with one or more of his brothers, distinguished in the partisan warfare under Marion and Sumter, in South Carolina.—During the late war with Great Britain he commanded a brigade on the northern frontier. He was one of the wealthiest men, if not the wealthiest, in the whole Southern country.—[Courier.]

The packet ship Britannia, Captain Waite, which arrived last week from Liverpool, is said to have brought the largest cargo of any packet since the line was established. It appears by the manifest, that she had on board 1805 cases and bales, 300 tons of iron and steel, &c. &c.

Invoice cost of the cargo, \$497,000  
One case gold, 50,000

Value, on first cost of cargo, \$547,000  
[Mercantile Adv.]

#### IMPORTANT NEWS FROM FRANCE.

**Recall of the French Minister from Washington.**—Passports tendered to the American Minister at Paris.

Such most unhappily, is the intelligence we have this day to communicate to our readers.—In the midst of prosperity unequalled, in the full tide of honorable and successful enterprise, straining every faculty in the race of physical, intellectual and moral improvement—while the ocean is whitened with our canvases—while the forests of the far wilderness are disappearing before our pioneers of civilization—while new undertakings are every where springing up for Canals and Railroads, to connect and benefit regions between which nature seemed to have placed insurmountable barriers—and when in addition, and as a grace and ornament to all these enterprises for advancing our wealth and material power and enjoyments, we are alive to, and liberally mindful of, the claims which the cause of education, of morals, and of religion has upon us, as a nation of Christian freemen—at such a period, and in the midst of such a career, the blight and curse, the desolation and demoralization of war seem about to fall on us.

By the *Orpheus* from Liverpool we have our London papers of Friday 16th ult. inclusive—and these furnish from the Paris *Moniteur* of Wednesday 14th, (the official paper,) a notification that M. Serrurier had been recalled from Washington, and that Mr. Livingston had been apprized that passports were ready for him—an

intimation to depart, which, it is said in several of the Paris papers, he meant immediately to comply with.

The paragraph in the *Moniteur* which follows this announcement of the cessation of diplomatic intercourse between the two countries, that "in consequence of the engagements" of France, the project of law for satisfying the indemnity to America would be immediately presented to the Chamber, must be looked on—unless there is really a disposition and intention on the part of the Ministry to make a sincere and vigorous effort to carry the indemnity through—as an insulting mockery.

We were not parties in, nor consenting to, the councils which have thus needlessly precipitated this matter; but "being in," we must bear ourselves as Americans, having a common cause, and resolved, at all hazards, if the flag of war must be thrown out, to rally under it, even to the death.

But we yet trust that war may be avoided—much, if not all, now depends on Congress.

What then should Congress do? Nothing at present. If the recall of the Minister be not followed up by any other hostile demonstration—though we confess our apprehension now is, that an embargo may be laid in the French ports—if however, nothing of this sort occur, we would wish this Congress might adjourn, without adopting any definitive measure—and that the President should forthwith issue a proclamation requiring the next Congress to meet on or about the 1st August. By that time the purposes of France would be fully developed, the feelings of our own people would be ascertained—and a Congress assembling under such circumstances, and acting with full knowledge and calm deliberation, would carry with them the assent of the whole nation.

We annex some extracts from Liverpool letters, which shew how this question is viewed there.

*Extract of a letter dated Liverpool, Jan. 15.*

There is a regular demand for Cotton, and prices have undergone little change of late, good fair Bowed selling to day at 9 3/4d. Business in Manchester is steady, and there is a tolerably steady sale for yarns for export, at prices which afford some remuneration at the present value of Cotton.

The aspect of affairs between your country and France is not pleasant. From present appearances, there is no reason to suppose the payment stipulated for in the treaty will be made, and the matter therefore will rest with Congress what measures, if any, are now to be adopted.

*Extract of a letter dated Liverpool, January 17.*

The recall of the French Minister at Washington is important, and will throw the course of proceedings on your Legislature, which we trust and believe will be temperate.

It is probable that the Chamber of Deputies will make some specific offer of compensation, which perhaps it would be well to accept. British shipping would certainly derive much benefit from war between France and the U. States, but trade will thereby be thrown out of its customary channels, and become hazardous and uncertain.

The Paris Correspondent of the London Times—a paper noted for the accuracy of its foreign information—thus writes about the rupture between France and us. It looks more favourably on the cases than other accounts.

#### Private Correspondence.

PARIS, WEDNESDAY, JAN. 14.

For the second time since the declaration of American independence an interruption has taken place in the friendly relations between the Government of this country and that of the United States. In both instances a question of pecuniary indemnity has led to the rupture, and now, as formerly, there is very little doubt that the French will consent to concede to the American people all that justice requires, as soon as they have done what is necessary to heal the wound which their self-love has sustained from the Message of General Jackson. On the former occasion two French frigates were seized and carried into American ports, but were afterwards released on the adjustment of the question at issue. A still stronger measure would probably have resulted from the present posture of affairs between the two countries, had not the French Government, in the very act of recalling their Minister at Washington, and of intimating to Mr. Livingston that his passports were ready for him, conveyed the official notification that the bill for the adjustment of the American differences was this very day to be presented to the Chamber of Deputies.

It could not, of course, have been very agreeable either to the Government or the Chamber to have been bearded during the discussion by the presence of an American Minister in the Hotel of the Rue de la Victoire. On the other hand, Mr. Livingston has not thought it necessary in the meantime to embark for the United States, but takes his passports in the first instance for London, when he will be at hand to give his advice to Mr. Barton, the Secretary of Legation, who will probably be left here in the capacity of Chargé d'Affaires, unless it shall appear, contrary to all present probability, that the whole of the French establishment at Washington is to retire with M. Serrurier, its chief, and that the last postern is to be closed to any thing like an amicable accommodation.

The National of this morning, in a short but sarcastic paragraph, treats this rupture of diplomatic intercourse, and the whole course adopted by this Government, which it had anticipated pretty accurately, as amounting to a declaration of war; but suggests that in eight days, when the outraged dignity of the Citizen King has been satisfied, and the Chamber has sanctioned the treaty for the payment of the 25,000,000 of francs to America, peace will be restored. In fact, ever since the arrival of the Message, the opposition journals have been much more moderate in their tone than was to have been expected under the circumstances, considering the part they took against the Duke de Broglie's Administration when the affair was formerly under discussion in the Chamber.

There appears, however, to be little ground for alarm. In the official conferences which have taken place within the last four days, between Mr. Livingston and Admiral de Rigny, every sort of assurance was given, on the one side and the other, of the anxiety of both Governments to avoid any serious cause of quarrel.—On the part of the Foreign Secretary this assurance was strongly repeated the night before last, and as late as yesterday, at the hour of post, there was not the least idea at the American legation that such a proceeding would have been resorted to as that which must by that time have been resolved on, and of which you have the official announcement in this morning's *Moniteur*.

We derive from Paris papers of Jan. 14, the following important paragraphs:—

Confidential instructions have been sent to the sea-ports, and principal commercial towns of the kingdom, to get up petitions for the immediate adoption by the Chambers of the treaty with the United States.

Mr. Middleton, Secretary to the American Legation at Madrid, arrived in Paris on Monday, with inscriptions for 12,000,000 reals delivered by Spain in pursuance of the new treaty between the two Powers for liquidating the claims of American citizens upon Spain.

Old Cobbett, we see, is re-elected from Oldham, and is classed in the list of Reformers; but we think it an even chance if he does not support the Duke.



The steam ship *Pylades*, new and carefully constructed, bound from Amsterdam to the East Indies, sank in smooth water off the coast, on the second day out—without having met with any accident whatever. The crew and passengers, to the number of 40 were taken off by fishermen. It is believed that holes had been maliciously bored in the vessel and temporarily stopped.

The Duke of Leuchtenberg, husband of the young Queen of Portugal, was expected in London at the last dates, on his way to Lisbon.

Old Talleyrand has at last retired from public life. His political testament is annexed. It was said in Paris that Louis Philippe hinted, that it should not be made public, which the wily statesman turned off by saying, the only question was, "whether it should be published by the royal permission, or his own."

The *Moniteur* announces officially that the King has accepted the resignation of the Prince de Talleyrand as Ambassador to England, and has appointed General Sebastiani to be his successor.

The Prince's letter follows:

"SIR—When the confidence of the King called me four years ago to the Embassy of London, the very difficulties of the mission induced me to obey. I believe I have accomplished for the benefit of France and of the King, two objects of interest which I have always had in my mind, and which I have always considered as closely connected. During these four years, the maintenance of a general peace has admitted of all our relations being simplified. Our policy, isolated as it was, has been mingled with that of the other nations. It has been accepted, appreciated, and honored by the honest men of all countries. The co-operation we have obtained from England has cost nothing to our independence or our national feelings; and such has been our respect for the rights of all, such has been the candor of our proceedings, that far from creating mistrust, it is our guarantee that has been called for against the spirit of Propagandism which disturbs the old States of Europe. It is certainly owing to the exalted wisdom and great abilities of the King that all these satisfactory results must be attributed. I claim for myself no other merit than that of having divined before all others the profound thoughts of the King, and to have announced them to those who have since been convinced of the truth of my words."

Now that all Europe knows and admires the King, and thereby the principal difficulties have been surmounted—now that England has perhaps an equal want with ourselves for a mutual alliance between us, and that the path which she appears to be inclined to follow must induce her to prefer a mind with traditions less ancient than mine, I conceive I may, without failing in my devoted duty to the King or to France, entreat, respectfully, that his Majesty will accept my resignation, which I request you, Sir, will lay before him. My great age, the infirmities which are its natural consequence, the repose they counsel, the reflection they suggest, render this step very simple; but too fully justify it, and even render it a duty. I rely upon the equity and goodness of the King to form the same judgment. Accept, etc.

PRINCE DE TALLEYRAND.

The following is the answer of the Minister for Foreign Affairs, which is only dated on Wednesday.

"PRINCE—I have laid before the King the letter you addressed to the Minister of Foreign Affairs, by which you entreat his Majesty to accept your resignation of the Embassy at London. His Majesty for a long time hesitated to accept it. In associating yourself with his sentiments and those of his Government, you have so ably concurred in giving stability to the new Monarchy and grandeur to its policy, and in maintaining the Peace of Europe, that the King could not consent to deprive France of your powerful services and vast experience. But his Majesty has felt that after so great and so long a career, the attachment

even, and the gratitude he bears towards you, will not suffer him any longer to resist the desire you have expressed to him, on account of your great age, to retire into repose. Accept, etc."

Our venerable fellow-citizen Col. Trumbull has, under his own signature, made a statement in our columns to-day, not without interest, as bearing upon the French question of indemnity.

Col. Trumbull's suggestion of discriminating duties, or non-intercourse, rather than war, is surely the right one to begin with.

To the Editor of the New York American:

SIR: The dispute between the United States and France, on the question of compensation to the citizens of the former, for spoliations committed by the Government or the citizens of the latter, and which the actual Government of France, stipulated by treaty to pay,—has arrived at such a stage, as to require correct information, in order to the forming of a just and firm decision on our part.

I possess some information which I think it my duty to offer as authentic and accurate.

In the commencement of the French Revolution, more than forty years ago, spoliations to a considerable extent, were committed by subjects of Great Britain on our Commerce; and became in some measure the cause of the mission of Mr. Jay to London, which mission resulted in what is commonly called Jay's Treaty. I acted on that occasion as Secretary to Mr. Jay.

The 7th article of that Treaty is in the words following:

"Whereas complaints have been made by divers merchants and others, citizens of the United States, that, during the war in which his Majesty is now engaged, they have sustained considerable losses and damages, by reason of irregular and illegal captures or condemnations of their vessels and other property, under the color of authority or commissions from his Majesty; and that from various circumstances belonging to the said cases, an adequate compensation for the losses and damages so sustained, cannot now be actually obtained, had, and received; it is agreed, that in all such cases where adequate compensation cannot, for whatever reason, be now actually obtained, had and received, by the said merchants and others, in the ordinary course of justice; full and complete compensation for the same, will be made by the British Government to the said claimants. But it is distinctly understood that this provision is not to extend to such losses or damages as have been occasioned by the manifest delay, or negligence, or wilful omission of the claimants."

For the purpose of ascertaining the amount of any such losses or damages, Five Commissioners shall be appointed and authorized to act in London, exactly in the same manner as is directed with respect to those mentioned in the preceding article, and after having taken the same oath or affirmation (mutatis mutandis) the same term of eighteen months is also assigned for the reception of claims, and they are in like manner authorized to extend the same in particular cases. They shall receive testimony, books, papers and evidence in the same latitude, and exercise the like discretion and power respecting that subject; and shall decide the claims in question, according to the merits of the several cases, and to Justice, Equity, and the Law of Nations; the award of the said Commissioners, or of any such three of them as aforesaid, shall, in all cases, be final and conclusive, both as to the justice of the case, and to the amount to be paid to the claimant; and his Britannick Majesty undertakes to cause the same to be paid to such claimants, in specie, without any deduction, in such place or places, and at such time or times, as shall be awarded by the same

Commissioners, and on condition of such releases or assignments to be given by the claimants, as by the said Commissioners may be directed."

Reference is made in the above to the Sixth Article, for the mode in which the Commissioners were to be appointed, it was as follows:

"Two of them shall be appointed by his Majesty, two of them by the President of the United States, by and with the advice and consent of the Senate thereof; and the Fifth by the unanimous voice of the other Four; and if they should not agree in such choice, then the Commissioners named by the two parties shall respectively propose one person, and of the two names so proposed, one shall be drawn by lot, in the presence of the four original Commissioners."

The two Commissioners named by Great Britain, were Sir John Nichol, and Maurice Swabey, Esq. her two most distinguished Civil Lawyers. Those named by the United States, were Christopher Gore and William Pinckney, two of their most distinguished Lawyers.

These gentlemen could not agree in electing by unanimous vote a Fifth, and therefore, resort was had to the other mode pointed out by the Treaty, and I became the Fifth Commissioner.

The Board sat in London, received a multitude of complaints, which were carefully examined, rejected some, admitted others; and in cases where we decided that loss or damage had been sustained, for which adequate compensation could not be obtained, had and received in the ordinary course of judicial proceedings, we referred all the papers to our merchants, (one British and one American) to examine and make up the accounts, and ascertain the exact amount of such loss and damage. They reported to the Board, who again, by themselves and their Secretary, re-examined the merchants' report; and finally, having determined the amount, we gave our award signed by each member, as well as by our Secretary, for such sum, payable at sixty days, at the British Treasury.

All these awards were paid with strict mercantile punctuality on the day named; and I never heard a single complaint of delay, much less of a refusal to pay.

The aggregate amount exceeded 10,000,000 of dollars, or 50,000,000 of French livres.

The period of time in which these British spoliations were committed, was short, commencing in 1793 and terminating at the date of the Treaty, Nov. 19th, 1794.

The spoliations complained of, as having been committed by France, extended over many years, and were wholesale transactions, comprehending seizures of ships in port, and confiscations of property on the land, as well as on the ocean.

Who can believe that the amount of these latter was not as great as that of the former? Who can doubt that it far very exceeded them? From the experience which I acquired by a careful examination of a great number, I have not a doubt, that if an accurate examination of each case could now be made, it would be found that the damage done to our commerce in the course of the wild revolution of France, decupled the damage done by Great Britain in that short period; and that, instead of 25 millions, the sum of 250 millions of livres would hardly be an equitable compensation.

The Legislative power of France seem disposed to nullify the Treaty on their part, and have once refused to grant the sum stipulated to be



paid to us. Why should we not nullify it on ours, by withdrawing those commercial advantages which are not only stipulated, but which France has actually enjoyed since the date of the Treaty?

And having first done this, if we should in addition impose heavy duties on the importation of French wines, silks, &c. &c. and apply the monies which might thus be collected to the payment of the losses which have been sustained by our citizens, would not that be a wiser and safer course than a resort to hostile measures?

If Mr. Gore or Mr. Pinckney were living, I should have left this office to them, but being the only survivor of those scenes, I have felt that this duty devolves on me, notwithstanding the neutral character which I held in the commission.

I am, sir, &c. &c.

12th February, 1835.

JNO. TRUMBULL.

**LIFE INSURANCE.**—*Andersonian Soiree.*—Last Monday, Dr. Hannay read a paper on the subject of Life Insurance, which excited much interest and considerable discussion, in which Messrs. Faichney, Retty, Professor Watt, and Mr. Smith of Jordanhill, took a part. The Doctor gave a sketch of the origin of insurance, tracing its progress from a very remote period. The Greeks probably, and certainly the Romans, as was shown by the references to Livy, Suetonius, and Cicero, practised a modification of marine insurance, which succeeding ages have perfected. The practice was lost, with many other useful customs, in the dark ages, and the Doctor showed that early in the 15th century it was probably revived at Barcelona. It was the more necessary to trace the history of marine insurance, as it had the precedence of all other kinds, and is the same in principle as that which has human life for its object. The modifications of the principle in respect to the insurance of human life were next shown and clearly explained. The application of it to different, nay, to all ranks, was next put in so clear a point, (as the President remarked,) as to preclude all discussion. To the wealthy proprietor of an entailed estate, to procure provision for the younger branches of his family, to the man of moderate income, to accomplish in a certain manner what his means could not do by its slow accumulations without much inconvenience; to professional men, whose gains and estate perish with themselves; to the officer and the man of business; and he likewise adverted to its extreme usefulness to the agriculturist, an effect of life insurance of more extended operation and application than is generally believed. The discussion of the evening turned on the question of its being suited to the operative part of the community. The Essayist contended that it was within the reach of a very large proportion of our working men and mechanics, who, by saving one shilling a week when of the age of 25, could secure 100l. at death to their heirs, and so defend many a widowed mother and poor orphan from the miseries of unprotected poverty, aggravated by recent bereavement. That half a million of persons contribute to savings banks institutions, which, though highly useful, fall far short of insurance as a means of provision, which last at once makes the provision sure—one from which the person insuring cannot draw back; and he is thus bound as it were to save to pay the premium; whereas he may in a fit of thoughtlessness or extravagance, withdraw his all from a savings bank, and dissipate it, and what is worse, become dissipated himself. The securing of debts and the attainment of a provision in old age, were also adduced as other advantages of the practice; and the facilities afforded by some offices in the way of loans to those who had paid a certain number of premiums was urged as an advantage under certain circumstances to the man in trade. Various arguments against it were combated, and, the large meeting to whom it was read seemed to think, satisfactorily. The doctor in conclusion, showed how he was led to the study of the subject by its connexion with the physiological and medical question of the duration of human life; and, urged by his thorough convictions of its

complete adequacy to the end in view, was anxious to make the great value of the practice more generally known and had recourse to than it is in our community.—[Glasgow Herald.]

**CHARLES LAMB.**—It is with a feeling of the deepest pain and sorrow that we have to record the death of this friend and benefactor of humanity. Charles Lamb, the fine-minded and noble-hearted Elias, expired at his house at Edmonton on the morning of Saturday last. His death was rather sudden, and we greatly fear that it may have been hastened by an accident which he met with a few days before. While taking his customary morning walk along the London road his foot slipped, and he fell, striking his face against some stones, so as to wound it severely. He was recovering, however, when we heard of him; (on Christmas day,) and as full of jest and whim as ever. Mr. Lamb sustained a severe shock in the loss of his, perhaps, oldest and dearest friend, Coleridge—to whom he so recently paid the last tribute of mortality—with whom he has been so soon re-united. All love and honor wait upon the memory of the friends! No man was ever more loved and honored in life than Chas. Lamb; his audience was fit, though few. His exquisite humor, his refined and subtle thought, his admirable critical powers—the fancy, the feeling, the wit that gave a character to his essays quite unique—

"All were but ministers of love,  
And fed his sacred flame."

that love which embraces humanity—the sympathy that encircles the whole family of life. Mr. Lamb was, we believe, in his sixty-first year. He has left a memory to which years will but add grace and lustre.

**Irish Cottage.**—"Tell me of the cottage, Laggin." "God bless you, Ma'am dear, you're cruel fond of hearing of cottages; sure the history of most of them in this country is alike;—a wedding, and little to begin with—a power of children, and little to give them—rack-rent for the bit of land, turned out, bag and baggage, for that or the tithe!—beggary, starvation, sickness, death! That's a poor Irishman's calendar since the world was a world, barris here and there, now and then, when he gets a sight of good fortune, by mistake!"—[New Monthly Magazine.]

**Leave Me Not Yet.**

Leave me not yet!—through rosy skies from far,  
But now the song-birds to their nests return!  
The trembling image of the first pale star  
On the dim lake but now begins to burn,  
—Leave me not yet!

Not yet!—low voices borne from hidden streams,  
Heard through the shivery woods, but now arise,  
Their sweet sounds mingle not with daylight dreams,  
They are of vesper's hymns and harmonies:  
—Leave me not yet!

My thoughts are like those gentle tones, dear love!  
By day shut up in their own still recess,  
They wait for dawn on earth, for stars above,  
Then to breathe out their voice of tenderness:  
—Leave me not yet!

**TOWNSEND & DUFEE,** of Palmyra, Manufacturers of Railroad Rope, having removed their establishment to Hudson, under the name of *Dufee, May & Co.* offer to supply Rope of any required length (without splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. Co. Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.  
Hudson, Columbia county, New-York, }  
January 29, 1835.

**RAILROAD CASTINGS.**

**MANY & WARD,** Proprietors of the Albany Eagle Air Furnace and Machine Shop, will make to order car wheels, chairs and knees, and every other description of castings required for railroads.  
R-ly feb4

**PATENT HAMMERED SHIP, BOAT, AND RAILROAD SPIKES.**

Railroad Spikes of every description required, made at the Albany Spike Factory. Spikes made at the above Factory are recommended to the public as superior to any thing of the kind now in use. Ship and Boat Spikes made full size under the head, so as not to admit water. Orders may be addressed to Messrs. ERASTUS CORNING & CO., Albany, or to THOMAS TURNER, at the Factory, Troy, N. Y.

**STEPHENSON,**

Builder of a superior style of Passenger Cars for Railroad.

No. 264 Elizabeth street, near Bleeker street, New-York.

RAILROAD COMPANIES would do well to examine these Cars; a specimen of which may be seen on that part of the New-York and Harlem Railroad now in operation.

**RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.**

Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New-York, will be promptly attended to. Also, CAR SPRINGS. Also, Flange Tires turned complete. J. ROGERS, KETCHUM & GROSVENOR.

**RAILWAY IRON.**

93 tons of 1 inch by 1 inch,	Flat Bars in lengths of
300 do. 1 1/2 do. do. do.	14 to 15 feet, counter sunk
40 do. 1 1/2 do. do. do.	holes, end cut at an angle
500 do. 2 do. do. do.	of 45 degrees, with splitting
300 do. 2 1/2 do. do. do.	plates and nails to suit.

soon expected.  
1250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.  
Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels.  
Axles of 2 1/2, 3, 3 1/2, 4, and 4 1/2 inches diameter for Railway Cars and Locomotives of patent iron.  
The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment. A. & G. RALSTON.  
9 South Front street, Philadelphia.  
Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use both in this country and Great Britain, will be exhibited to those disposed to examine them. d7lmowr

**SURVEYORS' INSTRUMENTS.**

Compasses of various sizes and of superior quality warranted.  
Leveling instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by  
E. & G. W. BLUNT, 154 Water street, corner of Maiden Lane.

**SURVEYING AND ENGINEERING INSTRUMENTS.**

The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely new, among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also a Railroad Goniometer, with two Telescopes—and a Leveling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.  
Wm. J. YOUNG,  
Mathematical Instrument Maker,  
No. 9 Dock st., Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.  
Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad. I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have resorted to in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sight, leaves the engineer scarcely anything to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,  
JAMES F. STABLE, Supt of Construction  
of Baltimore and Ohio Railroad.

Philadelphia, February, 1835.  
Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors.

E. H. GILL, Civil Engineer,  
Germantown, February, 1835.

For a year past I have used instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY B. CAMPBELL, Eng. Philad.  
mi ly  
Germantown, and Norristown Railroad



MAN is the minister and interpreter of nature, said a great philosopher; and he ought unquestionably to commence the study of the important science of nature by becoming acquainted with his own species in every form of existence, and in every stage of society, from the erratic savage of the forest to the polished inhabitant of the city. In this country we behold man in every shape and modification of insulated and social being. When we peruse Herodotus' description of the Scythians, Thucydides' of the ancient Grecians, Caesar's of the Gauls and Britons, and Tacitus' of the Germans, we perceive the prototypes of our Indians; but we have it in our power to view man in a savage state with our own eyes, without relying on the reports of others; and it is to be regretted that so much time has transpired, without more attention being bestowed on this interesting subject. Dr. Robertson says, 'almost two centuries elapsed after the discovery of America, before the manners of its inhabitants attracted, in any considerable degree, the attention of philosophers.' This neglect can, perhaps, never be fully retrieved. An intercourse with civilized man has changed our Indians in almost every respect; but there is still a sufficient remnant of their manners, languages, and traditions, left to interest inquiry, and invite investigation. In some very remote quarters, they may still be found in the unsophisticated forms of original barbarism, unaltered by extrinsic intercourse. Many of their languages may still be redeemed from oblivion, their persons may be delineated, and their manners and traditions may be described; and the knowledge which may be obtained, added to what has already been collected, may furnish invaluable illustrations of the human species. The number of languages in Mexico is thirty-five, of which fourteen have grammars and dictionaries. The Bible has been translated by Eliot, the Indian apostle, into the Algonquin language; and two thousand copies of the Mohawk version of St. John's Gospel have been printed by the British and Foreign Bible Society; and we have many collections of words in different Indian languages. Our antiquities are of two kinds, such as relate to the aboriginal and colonial states. We have no Indian monuments or curiosities that can be compared with the forts on the Ohio, or with the temples of the Aztecs. There are some remains of Indian pottery, of weapons, and of rude paintings. Mounds of earth, like the tumuli in Scandinavia, Russia and Tartary, the barrows in England, and the cairns in Scotland and Ireland, may still be seen, and also the outlines of extensive fortifications. But the variegated condition of the white man here exhibits human nature in all its shapes. We behold him in every stage of society, from the semi-savage hunter to the polished citizen; and we perceive every stage of cultivation, from the first tree that was cut to the elegant habitation. 'In North America,' says a distinguished writer, 'a traveller who sets

out from a great town, where the social state has attained to perfection, traverses successively all degrees of civilization and industry, which keep diminishing, till he arrives, in a few days, at the rude and unseemly hut formed of the trunks of trees newly cut down. Such a journey is a sort of practical analysis of the origin of nations and states. We set out from the most complicated union, to arrive at the most simple elements. We travel in retrogression the history of the progress of the human mind, and we find in space what is due only to the succession of time.'—[Scientific Tracts.]

**MECHANICS' MAGAZINE**, Nos. 1 and 2 of VOLUME 5, FOR JANUARY AND FEBRUARY, 1835.—The two first numbers of volume 5 are now published and for sale at 35 Wall street, and at the principal bookstores. These numbers contain a great number and variety of articles, both useful and entertaining; and are printed in a style altogether superior to any of the preceding numbers of the work, and no efforts will be spared to render the work equal to any other of the kind published.

Bound or stitched volumes may be had single, or in complete sets, at the office No. 35 Wall street, of

D. K. MINOR.

**RAILROAD AND CANAL MAP.**—THIS long promised Map is now ready for those who wish it. Its size is 24 by 40 inches. It is put up in a convenient pocket form, in morocco covers, and accompanied by over 70 pages of letter press, giving a concise description of, or reference to, each Road and Canal delineated on the Map. It will also be put up in *Marble Paper* covers, so as to be forwarded by mail to any part of the country; the postage of which, cannot exceed 44, and probably not 25 cents, to any part of the country.

Published at 35 Wall street, N. Y., by

D. K. MINOR.

**AGENTS FOR NEW PUBLICATIONS.**—HENRY G. WOODHULL, of Wheatland, Monroe county, New York, is agent for the following Publications: The New York American Daily, at \$10.00—Tri-Weekly, at \$5.00—Semi-Weekly, at \$4.00 in advance. The American Railroad Journal, Weekly, at \$3.00 per annum.

The Mechanics' Magazine, two volumes a year, at \$3.00 per annum.

The Quarterly Journal of Agriculture and Mechanics, at \$5.00 per annum, or \$1.25 per number.

The Family Magazine, 416 pages a year, at \$1.50 in advance.

The Monthly Repository and Library of Entertaining Knowledge, of 36 pages a month, at \$1.00 in advance, now in the 5th volume, bound volumes \$1.25.

The Ladies' Companion, of 54 pages a month, at \$3.00 per annum, in advance.

The Rochester Gem, at \$1.50 in advance.

All Communications addressed to me, at Wheatland Monroe county, will be promptly attended to. September 19, 1834. n6v6 Ctf.

#### SUPERIOR GARDEN AND AGRICULTURAL SEEDS.

The Subscriber has now on hand a full supply of Garden and Field Seeds, growth of 1834; among which are all the finest cabbages, cauliflower, broccolis, radishes, peas, &c., that are cultivated in England, France, and Holland, together with every sort that can be raised to advantage in our own country, and which are grown expressly for my use from stock furnished and raised by the most experienced gardeners in this country; in short, every article emanating from my store, I warrant genuine and fresh.

Also, skinkseed oats, potatosee oats, 44 lb. weight to the bushel, perennial rye grass, white clover, lucerne or French clover, orchard grass, Herd's grass, white mulberry, and yellow locust seeds, spring tares or vetches, genuine mangel wutzell, and ruta baga, and field turnip seeds, well worth the attention of farmers.

Canary, Hemp, Rape and other bird seeds; wholesale dealers supplied on accommodating terms. Price lists by the pound and bushel furnished on application, as also catalogues of whole collection.

The flower seed department embraces the choicest variety to be found in this country, in which are included choice double Dahlia seed, carnation and choice Pinks, German and China Asters, splendid double balsams, with an addition of several new varieties, accompanied with a printed direction for culture and management.

Orders will be punctually attended to and carefully packed and forwarded as directed, but as the collection of distant debts are often troublesome and sometimes impracticable it is desired that satisfactory reference be made to persons in Albany, when the order is not accompanied with the money.

W. THORNBURN.

347 N. Market st. (opposite Post Office)

\* \* Mr. Thornburn is also Agent, and will at all times receive subscriptions, for the NEW YORK FARMER and AMERICAN GARDENER'S MAGAZINE; QUARTERLY JOURNAL of Agriculture, Mechanics, and Manufactures; MECHANICS' MAGAZINE and Register of Inventions and Improvements; and the AMERICAN RAILROAD JOURNAL and Advocate of Internal Improvements; published at No. 35 Wall street, N. Y., by D. K. MINOR.

**LAFAYETTE.**—THE Enslaved by JOHN QUINCY ADAMS, on the Life and Services of this Benefactor of Mankind; on a beautiful paper and type; with a spirited medallion portrait. Is just published and for sale by D. K. MINOR, 35 Wall st. Sub5

#### NOTICE TO MANUFACTURERS.

**SIMON FAIRMAN**, of the village of Lansingburgh, in the county of Rensselaer, and state of New-York, has invented and put in operation a Machine for making Wrought Nails with square points. This machine will make about sixty 6d nails, and about forty 10d nails in a minute, and in the same proportion larger sizes, even to spikes for ships. The nail is hammered and comes from the machine, completely heated to redness, and its capacity for being clenched is good and sure. One horse power is sufficient to drive one machine, and may easily be applied, where such power for driving machinery is in operation. Said Fairman will make, vend and warrant machines as above, to any persons who may apply for them as soon as they may be made, and on the most reasonable terms. He also desires to sell one half of his patent right for the use of said machine throughout the United States. Any person desiring further information, or to purchase, will please to call at the machine shop of Mr. John Humphrey, in the village of Lansingburgh. August 15, 1835. A20 C RMAF

#### PATENT RAILROAD, SHIP AND BOAT SPIKES.

The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent,) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory, for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Troy, N. Y. July, 1831.

Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. I. Brower, 223 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

F. S.—Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes. 1J2sam

H. BURDEN.

#### MILL DAM FOUNDRY FOR SALE.

The Proprietors of the Mill Dam Foundry offer for sale or lease, their well known establishment, situated one mile from Boston. The improvements consist of

No. 1. Boiler House, 50 feet by 30 feet, containing all the necessary machinery for making boilers for Locomotives and other steam Engines.

No. 2. Blacksmith's Shop, 50 feet by 20, fitted with cranes for heavy work.

No. 3. Locomotive House, 54 feet by 25, used for putting together Locomotive Engines. Several of the best Engines in use in the United States have been put in this establishment.

No. 4. A three story brick building, covered with slate, 130 feet by 46, containing two water-wheels, equal to 40 horse power; Machine Shop, filled with lathes, &c.; Pattern Shop; Rolling Mill and Furnaces, capable of rolling 4 tons of iron per diem, exclusive of other work; three Trip Hammers, one of which is very large; Engine for blowing Cupola Furnaces, moved by water-wheel; one very superior 12 horse Steam Engine, which could be dispensed with; and a variety of other machinery.

No. 5. An Iron Foundry, 80 feet by 45, with a superior air Furnace and two Cupolas, Cope oven, Cranes, &c. fitted for the largest work. Attached to the Foundry is a large ware-house, containing Patterns for the Castings of Hydraulic Presses, Locomotive and other Steam Engines, Lead Mill Rolls, Gearing, Shafts, Groves, Grates, &c. &c. These were made of the most durable materials, under the direction of a very scientific and practical Engineer, and are supposed to be of great value.

No. 6. A building, 65 feet by 36, containing a large stock of chimneys, and furnaces, for making Cast Steel. This building is at present used as a boarding-house, and can accommodate a large number of men.

No. 7. A range of buildings, 200 feet long by 36, containing counting room, several store rooms, a Brass Foundry, room for cleaning castings, a large loft for storing patterns, stable for two horses, &c. &c.

The above establishment being on tide water, presents greater advantages for some kinds of business than any other in the United States. Coal and Iron can be carried from vessels in the harbors of Boston, to the wharf in front of the Factory, at 25 to 30 cents per ton. Some of the largest jobs of Iron work have been completed at this establishment; among others, the great chain and lift pumps for freeing the Dry Dock at the Navy Yard Charleston.

The situation for Railroad work is excellent, being in the angle formed by the crossing of the Providence and Worcester Railroads. The Locomotive "Yankee," now running on the latter road, and the "Jonathan," purchased by the State of Pennsylvania, were built at these works. With the Patterns and Machinery now in the premises, 12 Locomotives and as many tenders, besides a great quantity of cars and waggon, could be made per annum.

For terms, apply to

THOM. J. ECKLEY, Treasr, &c., Boston, or to ROBERT RALSTON, Jr., Philadelphia. Boston, Dec. 20, 1834.